



03-15-2024 to 08-20-2024

US & Canada

Building Site & Exterior Building Product Manual

—
New Build
StudioRes Gen 1
(SR) Make It Your Own



Table of Contents

PREAMBLE

AE - Automatic Entrance Doors

| | |
|-----------|--|
| DR-005-BE | The system shall consist of sliding aluminum doors, sidelights, header, operator, and actuating controls. All compone... Besam (Assa Abloy) |
| DR-005-HA | The system shall consist of sliding aluminum doors, sidelights, header, operator, and actuating controls. All compone... Horton Automatics |

ALY - Outdoor Wall Lighting / Sconces

| | |
|---------------|---|
| ALY-001-CL | Cooper Lighting - Portfolio |
| ALY-007-CL R2 | Down light 6" Recessed Emergency backup - Wet location Cooper Lighting |
| ALY-007-SI | Downlight 6" Recessed Emergency Backup - Wet location Signify / Lightolier |

ALZ - Landscape / Path Light / Inground

| | |
|------------|---|
| ALZ-055-CL | Exterior Parking Lot Type III Prevail with 25' Pole Cooper Lighting - Lumark |
| ALZ-056-CL | Crosstour LED - Ground Mount, Floodlight Kit LED Cooper Lighting - Lumark |

AS - Aluminum Storefront

| | |
|-----------------------|---|
| AS-001-KA / DR-005-KA | Interior and Exterior Aluminum Storefront Framing, Doors, Door Frames, Lights, and Fixed Windows Kawneer North America |
| AS-001-EF/ DR-005-EF | Interior and Exterior Aluminum Storefront Framing, Doors, Door Frames, Lights, and Fixed Windows EFCO |
| AS-001-OB/ DR-005-OB | Interior and Exterior Aluminum Storefront Framing, Doors, Door Frames, Lights, and Fixed Windows Oldcastle Building Envelope |

DH - Assembly, Door Hardware

| | |
|------------|---|
| T-11A | VARIOUS MANUFACTURERS |
| DH-028-MK | MacPRO Five Knuckle Heavy Weight Hinge Assa Abloy - McKinney Hardware |
| DH-028-CLR | Cal-Royal BB5200 4.5" x 4.5" Heavy Weight NRP Ball Bearing Hinge (Non-Removable Pin) Cal-Royal Door Hardware |
| DH-029-CLR | A2200 & AF2200 Rim Type Panic and Fire Exit Devices (ADA) Cal-Royal Door Hardware |
| DH-029-YA | Assa Abloy - Yale Locks & Hardware |
| DH-034-YA | 4400 Series Door Closer Assa Abloy - Yale Locks & Hardware |
| DH-034-CLR | CAL-ROYAL |

| | |
|------------|--|
| DH-091-PK | Bottom door sweep Assa Abloy - Rockwood Hardware |
| DH-065-PK | Standard Perimeter Gasketing Assa Abloy - Rockwood Hardware |
| DH-031-PK | Saddle Threshold ASSA ABLOY/Pemko |
| T-12 | VARIOUS MANUFACTURERS |
| DH-061-KB | Heavy duty electronic lockset (mortise or cylindrical) with clutch mechanism and either built in magnetic stripe (MT ... Kaba |
| T-15B | VARIOUS MANUFACTURERS |
| T-19B | VARIOUS MANUFACTURERS |
| DH-028-CLR | Cal-Royal BB5200 4.5" x 4.5" Heavy Weight NRP Ball Bearing Hinge (Non-Removable Pin) Cal-Royal Door Hardware |
| DH-028-MK | MacPRO Five Knuckle Heavy Weight Hinge Assa Abloy - McKinney Hardware |
| DH-034-CLR | CAL-ROYAL |
| DH-034-YA | 4400 Series Door Closer Assa Abloy - Yale Locks & Hardware |
| DH-070-YA | The 7110(F) is a surface vertical rod exit device to be used on wide stile or flush doors up to 8' (fire) and 10' (pa... Assa Abloy - Yale Locks & Hardware |
| DH-082-YA | Exit Device Escutcheon Lever Trim Schlage |
| DH-085-PK | Weatherstrip - Standard Perimeter Gasketing Assa Abloy - Rockwood Hardware |
| DH-090-PK | Saddle Threshold ASSA ABLOY/Pemko |
| DH-091-PK | Bottom door sweep Assa Abloy - Rockwood Hardware |
| T-21B | VARIOUS MANUFACTURERS |
| DH-028-CLR | Cal-Royal BB5200 4.5" x 4.5" Heavy Weight NRP Ball Bearing Hinge (Non-Removable Pin) Cal-Royal Door Hardware |
| DH-028-MK | MacPRO Five Knuckle Heavy Weight Hinge Assa Abloy - McKinney Hardware |
| DH-031-PK | Saddle Threshold ASSA ABLOY/Pemko |
| DH-034-CLR | CAL-ROYAL |
| DH-034-YA | 4400 Series Door Closer Assa Abloy - Yale Locks & Hardware |
| DH-045-YA | Storeroom or Closet Lock Assa Abloy - Yale Locks & Hardware |
| DH-065-PK | Standard Perimeter Gasketing Assa Abloy - Rockwood Hardware |
| DH-091-PK | Bottom door sweep Assa Abloy - Rockwood Hardware |

DR - Doors

| | |
|------------|--|
| DR-004-RDF | Flush, fire and/or temperature-rise-rated Republic Doors and Frames |
|------------|--|

DR-004-SC

Flush, fire and/or temperature-rise-rated
Steelcraft

EAL - Louvers / Grilles

EAL-001-FAC
Extruded aluminum architectural louver
Friedrich Air Conditioning Co.

ECT - High-Performance Coatings

ECT-001-A1-SW
Waterborne acrylic epoxy coating for exterior hollow metal doors, frames, and handrails
Sherwin Williams Company

ECT-001-A1-TN
Waterborne acrylic epoxy coating for exterior hollow metal doors, frames, and handrails
Tnemec Company

ECT-001-SW
Exterior Ferrous Metal Acrylic Gloss Enamel Paint Coating for exterior hollow metal doors, frames, and handrails
Sherwin Williams

ECT-002-TN
Waterborne acrylic epoxy coating for exterior metal fabrications (bollards).
Tnemec Company

EEF - Exterior Insulation Finishing System (EIFS)

EEF-001-A1-DR
Non-structural, insulated composite cladding system
Dryvit Systems, Inc.

EEF-001-A2-DR
Non-structural, insulated composite cladding system
Dryvit Systems, Inc.

EEF-001-A3-DR
Non-structural, insulated composite cladding system
Dryvit Systems, Inc.

EWP-002-A2-JH
Fiber cement lap siding boards, panels, trim, fascia and accessories
James Hardie Building Products, Inc.

EWP - Exterior Wall Panel

EWP-001-A1-JH
James Hardie Building Products, Inc.

EWP-001-A2-JH
James Hardie Building Products, Inc.

EWP-001-A3-JH
James Hardie Building Products, Inc.

EWP-002-A1-JH
Fiber cement lap siding boards, panels, trim, fascia and accessories
James Hardie Building Products, Inc.

EWP-002-A3-JH
Fiber cement lap siding boards, panels, trim, fascia and accessories
James Hardie Building Products, Inc.

EWP-003-A1-JH
woodtone

EWP-003-A2-JH
woodtone

EWP-003-A3-JH
woodtone

EWP-004-3AC
Metal composite material wall panel
3A Composites

EWP-005-CRT
Glass-mat-faced gypsum board for exterior sheathing and soffit board.
CertainTeed Corporation

EWP-005-JH
Non-combustible fiber cement, exterior grade siding and soffit board complying with ASTM C1186, Grade II, Type A
James Hardie Products

WGL - Exterior Glazing

| | |
|-------------|---|
| WGL-001-AGC | 1/4", Condition C (other coated glass), Type I (transparent glass, flat), Class I (clear), Quality q3 (glazing select... AGC Glass Company North America |
| WGL-001-GG | 1/4", Condition C (other coated glass), Type I (transparent glass, flat), Class I (clear), Quality q3 (glazing select... Guardian Industries |
| WGL-001-VG | 1/4", Condition C (other coated glass), Type I (transparent glass, flat), Class I (clear), Quality q3 (glazing select... Vitro Architectural Glass |
| WGL-001-VI | 1/4", Condition C (other coated glass), Type I (transparent glass, flat), Class I (clear), Quality q3 (glazing select... Viracon, Inc. |
| WGL-002-AGC | Preassembled units consisting of organically sealed panes of glass enclosing a hermetically sealed dehydrated air spa... AGC Glass Company North America |
| WGL-002-OB | Preassembled units consisting of organically sealed panes of glass enclosing a hermetically sealed dehydrated air spa... Oldcastle Building Envelope |
| WGL-002-VI | Preassembled units consisting of organically sealed panes of glass enclosing a hermetically sealed dehydrated air spa... Viracon, Inc. |

WO - Window Operators

| | |
|------------|--|
| WO-001-SHP | Actuators with hand crank and other features which enable window system to operate within ADAAG, UFAS, and ANSI A117... Southwest Home Products LLC |
|------------|--|

PREAMBLE

Instruction For Use of Documentation

The total required information provided to design and build a StudioRes by Marriott is contained in the criteria documents identified below which relay standardized public space, guestrooms, guestroom corridors, and back of house and building site + exterior. **Make It Your Own (MIYO)** is the decor package for the Public Space and Guestrooms.

Comprehensive Criteria Documents for StudioRes by Marriott are:

1. Design Standards
2. Design Guideline Drawings
3. Heart of House Guideline
4. Specifications as indicated below:
 - A. Building Product Manual (BPM)
 - Volume 1 - Building Site + Exterior
 - Volume 2 - Public Space
 - Volume 3 - Guestrooms
 - Volume 4 - Guest Laundry Equipment
 - B. Exterior Signage Specifications
 - C. Interior Signage Specifications
 - D. Interior Design Specification Manual

Alternate Sources of Information:

1. Change Bulletins
2. Additional Tools

Description Follows:

1. Design Standards provide a written macro view of the overall requirements for a StudioRes by Marriott.
2. The Design Guideline Drawings - provide more specific design direction via drawings to supplement the Design Standards.
3. The Interior Décor Spec Manual lists items required that are generally referred to as Furniture, Fixture, & Equipment or FF&E items. These items and the accepted suppliers listed, have been contracted by Marriott and can be supplied through Marriott's procurement division.
4. The Building Product Manual (BPM) includes the "guest-facing" building products (typically installed and supplied by the General Contractor) and all finishes required for the interior and exterior of the building. Marriott requires that all building products and finishes be provided by acceptable manufacturers. This document must be used in conjunction with the drawings for the contractor supplied items as specific dimensions and criteria are referenced in both documents. Because of the high quality of design expected for a StudioRes by Marriott, Marriott has specified acceptable suppliers who have worked closely with Marriott on the initial StudioRes design. All of these documents are integral elements of the complete design and construction information. The project architect is responsible for incorporating all components of the criteria documents in the development of any StudioRes by Marriott project.

Use of Drawings

Building Product Manual (BPM) mark numbers and Interior Décor Specification Manual x-ref numbers are shown on the Design Guideline Drawings as a base number only. Refer to the BPM and Interior Decor Specification Manual for mark numbers and x-ref numbers plus a suffix for product and FFE alternates and additional acceptable manufacturers.

* In the BPM acceptable manufacturers of same material/product are indicated by a suffix of "XX", the abbreviation of the manufacturer's name. (i.e. PL-101-MO for MOEN or PL-101-KO for Kohler). If there are multiple manufacturers, and the item looks very similar, and its only difference is a matter of style, then it is considered a variation of manufacturer and not an alternate and would receive the mfr. suffix.

* In the BPM alternate materials/products/designs are indicated by a suffix of "A1", "A2", "A3", etc. indicating "alternate", following the base number (i.e. PL-101-A1). When only one manufacturer is listed, no manufacturer initials are indicated before the alternate suffix.

General Compliance Requirements

The Owner's/ Franchisee's Consulting Design Professional shall be responsible for verifying and complying with all applicable laws, covenants, codes, ordinances, rules, regulations, restrictions, etc. The Design Professional shall pay close attention to the requirements of the federal accessibility law, Americans with Disability Act (ADA), local and state accessibility regulations, and the applicable fire, life safety requirements. It is also the responsibility of each hotel owner to ensure that all products have been adjusted in dimension, quantity and hand suit the specific site conditions.

GENERAL NOTES

1. All images, photographs, renderings of specified items contained in this specification package area for general design intent and reference only.
2. Refer to the preamble for terms, conditions, abbreviations, definitions, responsibilities, and general guidelines for all specified items.
3. Refer to drawings for exact locations and/or mounting heights of furniture, fixtures, and equipment. In the event of a discrepancy between drawings and specifications, please contact Marriott International immediately for written clarification.
4. Submittal of shop drawings & finish samples to Marriott International for review and written approval is required for any item supplied by a vendor other than the specified source.
5. Design Documentation firm to verify that all flammability requirements are met for property location. The requirements noted within this specification are general and local flammability may be more stringent.
6. Install all products and finishes per manufacturer's recommendations.
7. Final quantity of items to be based on final plans, room quantity, and final matrix.

Plumbing Fixture and Residential Appliances - General Notes

1. All plumbing fixtures and residential appliances to be of contract quality and suitable for commercial use.
2. Site measurements required.

ABBREVIATIONS

General Schedule Abbreviations:

| | |
|-------|--|
| ADA | Americans with Disabilities Act |
| AFF | Above Finish Floor |
| ASTM | American Society of Testing Materials |
| AWI | American Woodworking Institute |
| CEF | Corridors, Elevators, and Foyers |
| CF/CI | Contractor Furnished/ Contractor Installed |
| COM | Customer's Own Material |
| GC | General Contractor |
| GR | Guest Room |
| GRB | Guest Room Bath |
| LY | Lineal Yard |
| MF/MI | Manufacturer Furnished/ Manufacturer Installed |
| N/A | Not Applicable |

| | |
|-------|---|
| NFPA | National Fire Protection Association |
| NY | Narrow Yards |
| OF/CI | Owner Furnished/ Contractor Installed |
| OF/MI | Owner Furnished/ Manufacturer Installed |
| OF/OI | Owner Furnished/ Owner Installed |
| RFP | Request for Proposal |
| SF | Square Feet |
| SY | Square Yard |
| UL | Underwriters Laboratory |

A. Toilet Accessory Abbreviations:

For your use in utilizing the Toilet Accessories within the Building Product Manuals, the following information is supplied:

1. The Assembly is the type of restroom or bathroom. The Assembly is not recognized by a number.
2. Within each assembly, mark numbers are assigned to each component within the assembly. The component contains 2 characters or prefix 'TA' for Toilet Accessory Commodity. The first character of the 3 character suffix categorizes each toilet accessory commodity component, then is numbered sequentially."

- 100 – Grab Bars
- 200 – Toilet Tissue / Facial Tissue
- 300 – Glass Shelf / Iron Board Caddy
- 400 – Towel Bar / Towel Ring / Robe Hook
- 500 – Soap Dish / Shampoo Dispenser / Shower Accessory Ledge / Shower Foot Rest
- 600 – Shower Curtain Rod / Glass Shower (components)
- 700 – Shower Seat / Tub Seat
- 800 – Public Restroom (Feminine Napkin Dispenser / Paper Towel Dispenser / Receptacle / Soap Dispenser / Seat Cover)
- 900 – Miscellaneous

B. Plumbing Fixture Abbreviations:

For your use in utilizing the Plumbing Fixtures within the Building Product Manuals, the following information is supplied:

The Assembly No. contains 3 characters or prefix to define the type of assembly. The 2 character suffix is numerically sequential. Example TUB-01.

- TUB - Tub
- WHL - Whirlpool
- SHR - Shower
- SNK - Sink
- SVS - Service Sink
- WCL - Water Closet
- URN - Urinal
- WCR - Water Cooler" "EWS - Eye Wash
- MOP - Mop Sink
- CLO - Cleanout
- FLD - Floor Drain
- FSK - Floor Sink
- LIT - Lint Interceptor
- HYD - Hydrant
- RDR - Roof Drain

Mark numbers are assigned to each component within the assembly. The component contains 2 characters or prefix 'PL' for Plumbing Commodity.

The first character of the 3 character suffix categorizes each plumbing commodity component, then is numbered sequentially. Example PL-101, PL-102, etc.

- 100 – Sinks & Mop Sinks
- 200 – Faucets
- 300 – Toilets / Urinal / Water Cooler
- 400 – Shower Heads
- 500 – Shower Diverters
- 600 – Shower Surrounds / Shower Pans / Base / Tub
- 700 – Shower Doors
- 800 – Fittings
- 900 – Miscellaneous (Floor Drains, Clean Outs)

C. Door Hardware Abbreviations:

For your use in utilizing the Door Hardware within the Building Product Manuals, the following information is supplied:

The Assembly No. or Door Hardware Type No. contains 1 character or prefix "T". The 2 character suffix is numerically sequential. Example T-01.

Within each assembly, mark numbers are assigned to each component within the assembly. The component contains 2 characters or prefix 'DH' for Door Hardware Commodity. The 3 character suffix is numbered sequentially. Example DH-001, DH-002, etc.

BPM (Building Product Manual) Number Nomenclature

(items are numbered with the item prefix and then consecutive numbers starting with 001 - "Mark Number" unless indicated otherwise)

Openings

| | |
|---------------|--------|
| Door | DR-XXX |
| Door Frames | DF-XXX |
| Door Hardware | DH-XXX |

Equipment

| | |
|------------------------|---------|
| Residential Appliances | RA-XXX |
| Food Service Equipment | EQF-XXX |
| Laundry Equipment | EQD-XXX |

Electrical

| | |
|------------------------|--------|
| Receptacles + Switches | EL-XXX |
|------------------------|--------|

Millwork

| | |
|-------------------|--------|
| Millwork | ML-XXX |
| Plastic Laminate | LM-XXX |
| Millwork Hardware | MH-XXX |
| Countertops | CT-XXX |

Architectural Lighting

| | |
|---------------------------------------|---------|
| Controls | ALC-XXX |
| Box Light | ALB-XXX |
| Track Light & Parts | ALT-XXX |
| Exit Lighting | ALX-XXX |
| Recessed | ALR-XXX |
| Specialty | ALO-XXX |
| Strip Lighting | ALJ-XXX |
| Exterior Lighting (touching building) | ALY-XXX |

Exterior Lighting (not touching building) ALZ-XXX

Toilet Accessories TA-XXX

100 - Grab bars

200 - Toilet tissue/ facial tissue

300 - Glass Shelf/ Iron Board Caddy

400 - Towel bar/ Towel Ring/ Robe Hook

500 - Soap Dish/ Shampoo Dispenser/ Shower Accessory Ledge/ Shower Foot Rest

600 - Shower Curtain Rod/ Glass Shower (components)

700 - Shower Seat/ Tub Seat

800 - Public Restroom (Feminine Napkin Dispenser, Paper Towel Dispenser/ Receptacle, Soap Dispenser, Seat Cover)

900 - Misc.

Plumbing Fixtures PL-XXX

100 - Sink/ Mop Sink

200 - Faucets

300 - Toilets/ Urinal/ Water Cooler

400 - Shower Heads

500 - Shower Diverters

600 - Shower surrounds/pans/base/tub

700 - Shower doors

800 - Fittings

900 - Misc. (floor drains, clean outs)

Interior Finishes

Ceiling Panel CP-XXX

Concrete CO-XXX

Corner Guards CGR-XXX

Entrance Mat EM-XXX

Floor Coatings FC-XXX

Glass GL-XXX

Glass Film GF-XXX

Grout GR-XXX

Interior Plants IP-XXX

Metal MT-XXX

Metal Railing MTR-XXX

Mirror MR-XXX

Paint - Ceiling PTC-XXX

Paint - Walls PTW-XXX

Protective Wallcovering PW-XXX

Resilient Base RB-XXX

Resilient Flooring RF-XXX

Surface Panel SP-XXX

Stone ST-XXX

Thresholds TH-XXX

Tile Base TB-XXX

Tile Ceiling TC-XXX

Tile Floor TF-XXX

Tile Wall TW-XXX

Transition Strips TS-XXX

Trim TR-XXX

Underlayment UL-XXX

| | |
|-----------------|--------|
| Wood | WD-XXX |
| Wood Base | WB-XXX |
| Wood Finish | WF-XXX |
| Wood Panels | WP-XXX |
| Wood Trim | WT-XXX |
| Decorative Film | DF-XXX |

Exterior Finishes

| | |
|-----------------------------------|---------|
| Exterior Insulation Finish System | EEF-XXX |
| Manufactured Stone Masonry | MSM-XXX |
| Exterior Decorative Stone | EDS-XXX |
| Exterior Wall Panel | EWP-XXX |
| Exterior Roofing | ERF-XXX |
| Exterior Coating | ECT-XXX |
| Exterior Fence Material | EFM-XXX |

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AE - Automatic Entrance Doors

AUTOMATIC ENTRANCE DOORS

The system shall consist of sliding a...

Manufacturer: Besam (Assa Abloy)
Style/Series: Unislide OHC Series, Single-Slide - Unislide OC-S
(Exterior) / Type 310, Unislide OC-A" with Access Control Package
(Interior)

IMAGE NOT
AVAILABLE

Sales Rep

Primary

Chris Hobbs
Email: chris.hobbs@assaabloy.com
Office Phone: (443) 340-2176

Attributes

The system shall consist of sliding aluminum doors, sidelights, header, operator, and actuating controls. All components shall be factory assembled in the header, adjusted and tested.

Type: Single-sliding doors

DIMENSIONS

Dimension Explanation: Medium stile (4") with intermediate 4-inch muntin 10-inch bottom rail

MATERIAL/FINISH

Material Composition: Aluminum, ASTM B221, 6063-T6 alloy and temper.

Color: Custom color to match Aluminum Window color and as approved by the Marriott Representative

Finish: Refer to Notes

PERFORMANCE

Accessibility Compliance : All door openings shall comply with ADA Chapter 4 Entrances, Doors, and Gates/ANSI A117.1.

Accessories: Hardware for emergency breakaway function: Arms and bottom pivot assemblies supplied by the manufacturer, adjustable to comply with applicable codes. Electrified slide lock shall automatically lock all sliding door panels when the door panels are in the closed position. Fail-secure carriage lock. Weather-stripping shall be slide-in type, replaceable pile mohair seals retained by aluminum extrusions. Card reader (Refer to Door Hardware Schedule) will be mounted on vestibule side of interior unit. Manufacturer's standard one-piece extruded aluminum header with a replaceable aluminum track extending full width of entrance unit. Combination Activation Motion Sensor/Safety Presence Sensor. Manufacturer's standard sign: red background with 1-inch high contrasting letters with the words "IN EMERGENCY PUSH TO OPEN." Door Panels: 1/4" tempered, clear glass. Sidelite panels: 5/8" insulated. As recommended by the storefront framing

manufacturer for applications indicated.

Best Practices: Recycled content of aluminum.

Operation: Electronic automatic, single-sliding directional operation.

In compliance with NFPA 101, the sliding door panels shall allow "breakout" to the full open position to provide instant egress at any point in the door's movement. Break-out feature shall comply with requirements of Authorities Having Jurisdiction. To allow safe egress, automatic operation shall be discontinued when the sliding panel is in the "breakout" mode. Doors and sidelights shall be sized to prevent pinch points at meeting stiles.

Quality Standards: ANSI/BHMA A156.10, "American National Standard for Power Operated Pedestrian Doors." UL 325 Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems.

MISCELLANEOUS

Warranty: System Warranty: 2 years

Finish Warranty: Refer to Notes

Notes

Maintenance Period: 12 months following date of Substantial Completion.

Finish Options & Colors:

1. Powder Coat Systems:

a. Non-Florida or Non-Coastal Projects require powder coat polyester complying with AAMA 2604, 10-year warranty. Color PPG-PCTT2314 (Enviracon 4).

b. For Florida and other coastal region projects, use 100% FEVE resin powder coating complying with AAMA 2605 with 20-year warranty. Color PPG-PCNT88101 (Corafon).

2. Liquid-applied systems:

a. Use 2-coat, 50% PVDF resin system complying with AAMA 2604, 10-year warranty. Color PPG-UC43350 (Acrynar).

b. For Florida and coastal regions, use 2-coat, 70% PVDF resin system complying with AAMA 2605 with 20-year warranty. Color PPG-UC43350 (Duranar).

3. Anodized Finish Systems:

a. Electrolytically Deposited Anodic Coating, Class 1, Designation AAM12C21A44 conforming to AAMA 611 with 10-year warranty.

Special Instructions

Opening force: Sliding doors provided with a breakaway device shall require no more than 50 lbf (222N) applied 1 inch (25 mm) from the leading edge of the lock stile for the breakout panel to open

Entrapment Force Requirements: Not more than 30 lbf required to prevent stopped door from closing

Operating Range: Minus 30 deg F (Minus 34 deg C) to 130 deg F (54 deg C).

Safety Search Circuitry: Shall be provided which will recycle the doors when an object is encountered during the closing cycle. The circuitry shall search for that object on the next closing cycle by reducing the door speed at the position the object was previously encountered, and will continue to close in check speed until the doors are fully closed, at which time the doors will reset to normal speed. If the obstruction is encountered again, the doors shall come to a full stop. The door shall remain stopped until the obstruction is

removed and an operate signal is given, resetting the door to its normal speed.

The doors shall be provided with a "Fail-Secure Electric Carriage Lock" in the header to prevent the doors from sliding in the night mode. This device shall not interfere with emergency breakout function.

The doorway presence-sensing device shall be the BEA Wizard Threshold" by Besam. The sensor shall be factory-installed to the underside of the header. The interior door sensing device shall be disabled (night mode) by a key switch furnished by others and installed by Door Installer/Contractor.

AUTOMATIC ENTRANCE DOORS

The system shall consist of sliding a...

Manufacturer: Horton Automatics

Style/Series: Series 2003 Belt Drive, Single-Slide - Type 310, Model SO-SX,SX-SO (Exterior) / Type 310, Model SO-SX,SX-SO with optional muntin(Interior)

Sales Rep

Primary

Customer Care

Email: hortoncustomercare@overheaddoor.com

Office Phone: (800) 531-3111

Attributes

The system shall consist of sliding aluminum doors, sidelights, header, operator, and actuating controls. All components shall be factory assembled in the header, adjusted and tested.

Type: Single-sliding doors

DIMENSIONS

Dimension Explanation: Medium stile (4") with intermediate 4-inch muntin 10-inch bottom rail

MATERIAL/FINISH

Material Composition: Aluminum, ASTM B221, 6063-T6 alloy and temper.

Color: Black

Finish: Refer to Notes

PERFORMANCE

Accessibility Compliance : All door openings shall comply with ADA Chapter 4 Entrances, Doors, and Gates/ANSI A117.1.

Accessories: Hardware for emergency breakaway function: Arms and bottom pivot assemblies supplied by the manufacturer, adjustable to comply with applicable codes. Electrified slide lock shall automatically lock all sliding door panels when the door panels are in the closed position. Fail-secure carriage lock. Weather-stripping shall be slide-in type, replaceable pile mohair seals retained by aluminum extrusions. Card reader (Refer to Door Hardware Schedule) will be mounted on vestibule side of interior unit. Manufacturer's standard one-piece extruded aluminum header with a replaceable aluminum track extending full width of entrance unit. Combination Activation Motion Sensor/Safety Presence Sensor. Manufacturer's standard sign: red background with 1-inch high contrasting letters with the words "IN EMERGENCY PUSH TO OPEN." Door Panels: 1/4" tempered, clear glass. Sidelite panels: 5/8" insulated. As recommended by the storefront framing manufacturer for applications indicated.



Best Practices: Recycled content of aluminum.

Operation: Electronic automatic, single-sliding directional operation.

In compliance with NFPA 101, the sliding door panels shall allow "breakout" to the full open position to provide instant egress at any point in the door's movement. Break-out feature shall comply with requirements of Authorities Having Jurisdiction. To allow safe egress, automatic operation shall be discontinued when the sliding panel is in the "breakout" mode. Doors and sidelights shall be sized to prevent pinch points at meeting stiles.

Quality Standards: ANSI/BHMA A156.10, "American National Standard for Power Operated Pedestrian Doors." UL 325 Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems.

MISCELLANEOUS

Warranty: System Warranty: 2 years

Finish Warranty: Refer to Notes

NOTES

Maintenance Period: 12 months following date of Substantial Completion.

Finish Options & Colors: 1. Powder Coat Systems: a. Non-Florida or Non-Coastal Projects require powder coat polyester complying with AAMA 2604, 10-year warranty. Color Black (Enviracon 4). b. For Florida and other coastal region projects, use 100% FEVE resin powder coating complying with AAMA 2605 with 20-year warranty. Color PPG-PCNT98111 Black (Corafon). 2. Liquid-applied systems: a. Use 2-coat, 50% PVDF resin system complying with AAMA 2604, 10-year warranty. Color PPG-UCFX12090 Black (Acrynar). b. For Florida and coastal regions, use 2-coat, 70% PVDF resin system complying with AAMA 2605 with 20-year warranty. Color PPG-UC40577 Black (Duranar). 3. Anodized Finish Systems: a. Electrolytically Deposited Anodic Coating, Class 1, Designation AAM12C21A44 conforming to AAMA 611 with 10-year warranty.

SPECIAL INSTRUCTIONS

Opening Force: Sliding doors provided with a breakaway device shall require no more than 50 lbf (222N) applied 1 inch (25 mm) from the leading edge of the lock stile for the breakout panel to open

Entrapment Force Requirements : Not more than 30 lbf required to prevent stopped door from closing Operating Range: Minus 30 deg F (Minus 34 deg C) to 130 deg F (54 deg C).

Safety Search Circuitry: Shall be provided which will recycle the doors when an object is encountered during the closing cycle. The circuitry shall search for that object on the next closing cycle by reducing the door speed at the position the object was previously encountered, and will continue to close in check speed until the doors are fully closed, at which time the doors will reset to normal speed. If the obstruction is encountered again, the doors shall come to a full stop. The door shall remain stopped until the obstruction is removed and an operate signal is given, resetting the door to its normal speed. The doors shall be provided with a "Fail-Secure Electric Carriage Lock" in the header to prevent the doors from sliding in the night mode. This device shall not interfere with emergency breakout function. The doorway presence-sensing device shall be the "Optional Sensor with added threshold scan" by

Horton. The sensor shall be factory-installed to the underside of the header. The interior door sensing device shall be disabled (night mode) by a key switch furnished by others and installed by Door Installer/Contractor.

ALY - Outdoor Wall Lighting / Sconces

OUTDOOR WALL LIGHTING / SCONCES

Manufacturer: Cooper Lighting - Portfolio
Style/Series: XTOR Crosstour LED



Sales Rep

Primary

Kathleen Kenny
Email: kathleen.kenny@cooperlighting.com
Office Phone: (678) 447-5208

Attributes

Type: Wall Pack

DIMENSIONS

Width: 5-3/4"
Length: 6-3/4"
Height: 3-5/8"

MATERIAL / FINISH

Finish: Black

MISCELLANEOUS

Lead Time: Stock to 4 weeks
Warranty: 5 Year Warranty

CUSTOM FIELDS

Mount: Wall
Lamp Type: LED
Lamp Kelvin: 4000K
Lamp CRI: 70
Delivered Lumens (LED) or Mean Lumens (Non-LED): 2103
Fixture Input (Max. Watts): 18
Voltage: UNV 120-277

DESCRIPTION

The patented Lumark Crosstour™ LED Wall Pack Series of luminaires provides an architectural style with super bright, energy efficient LEDs. The low-profile, rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed optical compartment make the Crosstour impervious to contaminants. The Crosstour wall luminaire is ideal for wall/surface, inverted mount for façade/canopy illumination, post/bollard, site lighting, floodlight and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, stairways and loading docks test.

SPECIFICATION FEATURES

Construction

Slim, low-profile LED design with rugged one-piece, die-cast aluminum hinged removable door and back box. Matching housing styles incorporate both a small and medium design. The small housing is available in 12W, 18W and 26W. The medium housing is available in the 38W model. Patented secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes three half-inch, NPT threaded conduit entry points. The universal back box supports both the small and medium forms and mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes. Key hole gasket allows for adaptation to junction box or wall. External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Minimum 5" wide pole for site lighting application. Not recommended for car wash applications.

Optical

Silicone sealed optical LED chamber incorporates a custom engineered mirrored anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets IESNA requirements for full cutoff compliance. Available in seven lumen packages; 5000K, 4000K and 3000K CCT.

Electrical

LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 12W, 18W, 26W and 38W series operate in -40°C to 40°C [-40°F to 104°F]. High ambient 50°C models available. Crosstour luminaires maintain greater than 89% of initial light output after 72,000 hours of operation. Three half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized

| | | |
|-------------|--|------|
| Catalog # | | Type |
| Project | | |
| Comments | | Date |
| Prepared by | | |

electrical wiring compartment. Integral LED electronic driver is standard 0-10V dimming. 120-277V 50/60Hz or 347V 60Hz models.

Finish

Crosstour is protected with a Super durable TGIC carbon bronze or summit white polyester powder coat paint. Super durable TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life. Options to meet Buy American and other domestic preference requirements.

Warranty

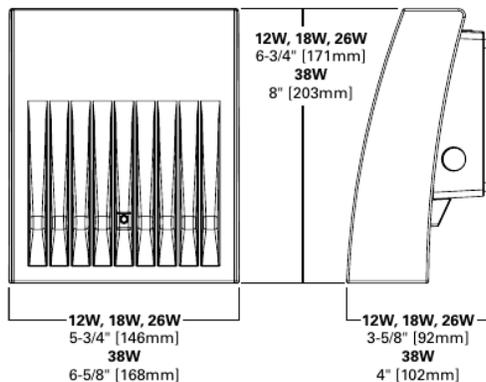
Five-year warranty.



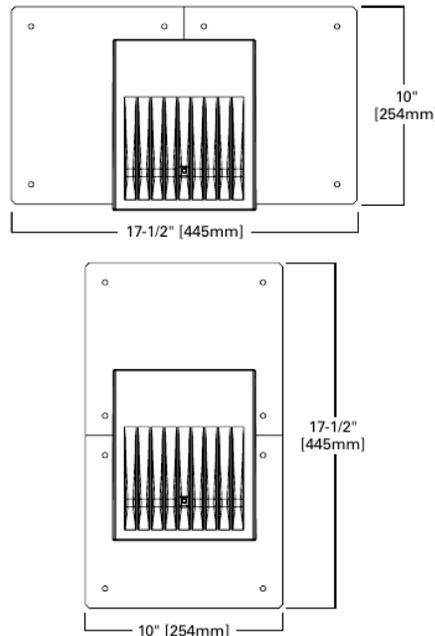
XTOR CROSSTOUR LED

APPLICATIONS:
WALL / SURFACE
POST / BOLLARD
LOW LEVEL
FLOODLIGHT
INVERTED
SITE LIGHTING

DIMENSIONS



ESCUTCHEON PLATES



CERTIFICATION DATA

Dark Sky Approved (Fixed mount, Full cutoff, and 3000K CCT only)
UL/cUL Wet Location Listed
LM79 / LM80 Compliant
ROHS Compliant
ADA Compliant
NOM Compliant Models
IP66 Ingressed Protection Rated
Title 24 Compliant
DesignLights Consortium® Qualified*

TECHNICAL DATA

40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum

EPA

Effective Projected Area (Sq. Ft.):
XTOR1B, XTOR2B, XTOR3B=0.34
XTOR4B=0.45

SHIPPING DATA:

Approximate Net Weight:
3.7 – 5.25 lbs. [1.7 – 2.4 kgs.]

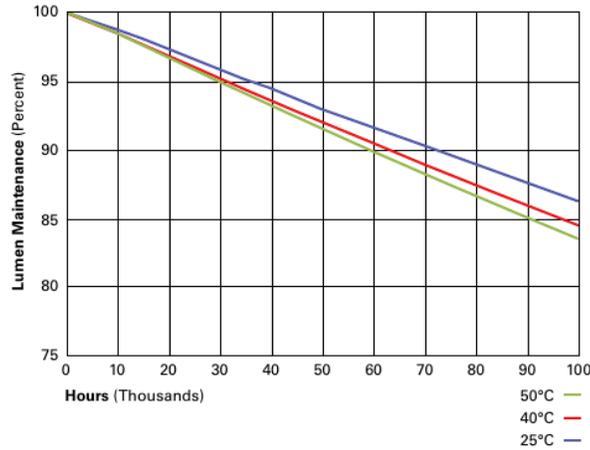
POWER AND LUMENS BY FIXTURE MODEL

| LED Information | XTOR1B | XTOR1B-W | XTOR1B-Y | XTOR2B | XTOR2B-W | XTOR2B-Y | XTOR3B | XTOR3B-W | XTOR3B-Y | XTOR4B | XTOR4B-W | XTOR4B-Y |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Delivered Lumens (Wall Mount) | 1,418 | 1,396 | 1,327 | 2,135 | 2,103 | 1,997 | 2,751 | 2,710 | 2,575 | 4,269 | 4,205 | 3,995 |
| Delivered Lumens (With Flood Accessory Kit) ¹ | 1,005 | 990 | 940 | 1,495 | 1,472 | 1,399 | 2,099 | 2,068 | 1,965 | 3,168 | 3,121 | 2,965 |
| B.U.G. Rating ² | B1-U0-G0 | B2-U0-G0 | B2-U0-G0 | B2-U0-G0 |
| CCT (Kelvin) | 5,000 | 4,000 | 3,000 | 5,000 | 4,000 | 3,000 | 5,000 | 4,000 | 3,000 | 5,000 | 4,000 | 3,000 |
| CRI (Color Rendering Index) | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| Power Consumption (Watts) | 12W | 12W | 12W | 18W | 18W | 18W | 26W | 26W | 26W | 38W | 38W | 38W |

NOTES: 1 Includes shield and visor. 2 B.U.G. Rating does not apply to floodlighting.

LUMEN MAINTENANCE

| Ambient Temperature | TM-21 Lumen Maintenance (72,000 Hours) | Theoretical L70 (Hours) |
|---------------------|--|-------------------------|
| XTOR1B Model | | |
| 25°C | > 90% | 255,000 |
| 40°C | > 89% | 234,000 |
| 50°C | > 88% | 215,000 |
| XTOR2B Model | | |
| 25°C | > 89% | 240,000 |
| 40°C | > 88% | 212,000 |
| 50°C | > 87% | 196,000 |
| XTOR3B Model | | |
| 25°C | > 89% | 240,000 |
| 40°C | > 88% | 212,000 |
| 50°C | > 87% | 196,000 |
| XTOR4B Model | | |
| 25°C | > 89% | 222,000 |
| 40°C | > 87% | 198,000 |
| 50°C | > 87% | 184,000 |



CURRENT DRAW

| Voltage | Model Series | | | |
|---------|--------------|--------|--------|--------|
| | XTOR1B | XTOR2B | XTOR3B | XTOR4B |
| 120V | 0.103A | 0.15A | 0.22A | 0.34A |
| 208V | 0.060A | 0.09A | 0.13A | 0.17A |
| 240V | 0.053A | 0.08A | 0.11A | 0.17A |
| 277V | 0.048A | 0.07A | 0.10A | 0.15A |
| 347V | 0.039A | 0.06A | 0.082A | 0.12A |

ORDERING INFORMATION

Sample Number: XTOR2B-W-WT-PC1

| Series ¹ | LED Kelvin Color | Housing Color | Options (Add as Suffix) | Accessories (Order Separately) ⁸ |
|--|---|---|---|---|
| XTOR1B =Small Door, 12W XTOR2B =Small Door, 18W XTOR3B =Small Door, 26W XTOR4B =Medium Door, 38W BAA-XTOR1B =Small Door, 12W, Buy American Act Compliant ⁷ TAA-XTOR1B =Small Door, 12W Trade Agreements Act Compliant ⁷ BAA-XTOR2B =Small Door, 18W, Buy American Act Compliant ⁷ TAA-XTOR2B =Small Door, 18W, Trade Agreements Act Compliant ⁷ BAA-XTOR3B =Small Door, 26W, Buy American Act Compliant ⁷ TAA-XTOR3B =Small Door, 26W, Trade Agreements Act Compliant ⁷ BAA-XTOR4B =Medium Door, 38W, Buy American Act Compliant ⁷ TAA-XTOR4B =Medium Door, 38W, Trade Agreements Act Compliant ⁷ | [Blank] =Bright White (Standard), 5000K W =Neutral White, 4000K Y =Warm White, 3000K | [Blank] =Carbon Bronze (Standard) WT =Summit White BK =Black BZ =Bronze AP =Grey GM =Graphite Metallic DP =Dark Platinum | PC1 =Photocontrol 120V ² PC2 =Photocontrol 208-277V ^{2,3} 347V =347V ⁴ HA =50°C High Ambient ⁴ | WG/XTOR =Wire Guard ⁵ XTORFLD-KNC =Knuckle Floodlight Kit ⁶ XTORFLD-TRN =Trunnion Floodlight Kit ⁶ XTORFLD-KNC-WT =Knuckle Floodlight Kit, Summit White ⁶ XTORFLD-TRN-WT =Trunnion Floodlight Kit, Summit White ⁶ EWP/XTOR =Escutcheon Wall Plate, Carbon Bronze EWP/XTOR-WT =Escutcheon Wall Plate, Summit White |

NOTES:

- DesignLights Consortium® Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details.
- Photocontrols are factory installed.
- Order PC2 for 347V models.
- Thru-branch wiring not available with HA option or with 347V. XTOR3B not available with HA and 347V or 120V combination.
- Wire guard for wall/surface mount. Not for use with floodlight kit accessory.
- Floodlight kit accessory supplied with knuckle (KNC) or trunnion (TRN) base, small and large top visors and small and large impact shields.
- Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC.PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
- Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

STOCK ORDERING INFORMATION

| Domestic Preferences ¹ | 12W Series | 18W Series | 26W Series | 38W Series |
|-----------------------------------|---|---|---|---|
| [Blank] =Standard | XTOR1B =12W, 5000K, Carbon Bronze | XTOR2B =18W, 5000K, Carbon Bronze | XTOR3B =26W, 5000K, Carbon Bronze | XTOR4B =38W, 5000K, Carbon Bronze |
| BAA =Buy American Act | XTOR1B-WT =12W, 5000K, Summit White | XTOR2B-W =18W, 4000K, Carbon Bronze | XTOR3B-W =26W, 4000K, Carbon Bronze | XTOR4B-W =38W, 4000K, Carbon Bronze |
| TAA =Trade Agreements Act | XTOR1B-PC1 =12W, 5000K, 120V PC, Carbon Bronze | XTOR2B-WT =18W, 5000K, Summit White | XTOR3B-WT =26W, 5000K, Summit White | XTOR4B-WT =38W, 5000K, Summit White |
| | XTOR1B-W =12W, 4000K, Carbon Bronze | XTOR2B-PC1 =18W, 5000K, 120V PC, Carbon Bronze | XTOR3B-PC1 =26W, 5000K, 120V PC, Carbon Bronze | XTOR4B-PC1 =38W, 5000K, 120V PC, Carbon Bronze |
| | | XTOR2B-W-PC1 =18W, 4000K, 120V PC, Carbon Bronze | XTOR3B-W-PC1 =26W, 4000K, 120V PC, Carbon Bronze | XTOR4B-W-PC1 =38W, 4000K, 120V PC, Carbon Bronze |
| | | XTOR2B-347V =18W, 5000K, Carbon Bronze, 347V | XTOR3B-347V =26W, 5000K, Carbon Bronze, 347V | XTOR4B-347V =38W, 5000K, Carbon Bronze, 347V |
| | | XTOR2B-WT-PC1 =18W, 5000K, 120V PC, Summit White | XTOR3B-PC2 =26W, 5000K, 208-277V PC, Carbon Bronze | |

NOTES:

- Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC.PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.

OUTDOOR WALL LIGHTING / SCONCES

Down light 6" Recessed Emergency back...

Manufacturer: Cooper Lighting

Style/Series: HALO HC610D010IEM7-HM60525830-61MDCIEM R2

Sales Rep

Primary

Kathleen Kenny

Email: kathleen.kenny@cooperlighting.com

Office Phone: (678) 447-5208

Attributes

Down light 6" Recessed Emergency backup - Wet location

Type: Down Light Fixture

DIMENSIONS

Width: 7.5"

Length: 13"

Height: 7"

Dimension Explanation: (26"L with bar hangars)

MATERIAL/FINISH

Finish: Specular Clear

MISCELLANEOUS

Lead Time: In stock or 4 weeks

Warranty: Five year limited warranty

CUSTOM FIELDS

Delivered Lumens (LED) or Mean Lumens (Non-LED): 1223

Dimming Type: 0-10V

Efficacy: 97.9 Lm/W

Finish: NA

Fixture Input (Max. Watts): 9.9 W

Lamp CRI: 80+

Lamp Kelvin: 3000

Lamp Life/Fixture Life: 50,000 hrs

Lamp Model #: NA

Lamp Quantity: NA

Lamp Type: LED

Lens/Shade: NA

Mount: Recessed

On Dimming System: NA

Reflector: NA

Trim: Clear

Voltage: 120/277V



OUTDOOR WALL LIGHTING / SCONCES

Downlight 6" Recessed Emergency Backu...

Manufacturer: Signify / Lightolier
Style/Series: 6RNU-P6RDL10940CCPZ10UIEM6

Sales Rep

Primary

Ryan Smillie
Email: ryan.smillie@signify.com
Office Phone: 408-813-3032

Attributes

Downlight 6" Recessed Emergency Backup - Wet location

Type: Down Light Fixture

DIMENSIONS

Width: 10"
Length: 13"
Height: 5"
Dimension Explanation: (24"L with bar hangers)

MISCELLANEOUS

Lead Time: In stock or 4 weeks
Warranty: Five year limited warranty

CUSTOM FIELDS

Trim: Comfort Clear
Lamp Quantity: NA
Voltage: 120/277V
Lamp CRI: 80+
Lamp Kelvin: 4000
Lamp Type: LED
Finish: Specular Clear
Reflector: NA
Mount: Recessed
Dimming Type: NA
Lamp Model #: NA
Lens/Shade: NA
On Dimming System: No
Delivered Lumens (LED) or Mean Lumens (Non-LED): 1000
Fixture Input (Max. Watts): 10W
Lamp Configuration: NA

Notes

Efficacy: 100 lm/W
Lamp Life/Fixture Life: 50,000 hours





Project: _____
 Location: _____
 Cat.No: _____
 Type: _____
 Qty: _____
 Notes: _____

LyteProfile downlights and wall washers provide a perfect balance of functionality with glare control. The robust and versatile UniFrame frame-in kit makes changes and updates easy to manage and install. Ideal for use in a variety of applications including open office, institutional, healthcare, and retail.

Standard luminaire = Frame + Engine/Trim + Accessories (optional)

Buy American Act of 1933 (BAA)** Compliant luminaire* = Frame-BAC + Engine/Trim-BAC

* BAA compliance requires that BAC option be selected for each of frame and engine/trim.
 Frame and engine/trim will be ordered/shipped together (ex: 4RN-BAC-Z4RDL20835WOCZ10U-BAC).
 Accessories (optional) are not currently BAA-compliant.

Frame

Standard example: 6RN | BAC example: 6RN-BAC

| Series | Aperture | Installation | Options |
|------------------------------------|----------------|------------------------------------|---|
| 6 | R | N | U |
| 6 Uniframe 6-inch Non-IC | R Round | N New construction (Non-IC) | - Universal 120/277/347V ¹ LC Chicago Plenum EM6 Emergency, 6W Self-Test/Self-Diagnostic (not available for BAC) ² |
| | | R Remodeler (Non-IC) | - Universal 120/277/347V ¹ |
| | | A AirSeal (IC) | - Universal 120/277/347V ¹ |
| | | | 3 347V (for non-0-10v configurations) RADIO Integral Interact Pro RF sensor (120/277/347V) (enables wireless connected lighting control) ³ BAC Meets the requirements of the Buy American Act of 1933 (BAA)** |
| | | | 3 347V (for non-Z10 configurations) BAC Meets the requirements of the Buy American Act of 1933 (BAA)** |

Light Engine / Trim

Standard example: P6RDL20835CDZ10U | BAC example: P6RDL20835CDZ10U-BAC

| Series | Style | Lumen | CRI/CCT | Reflector | Flange | Dimming | Voltage | Options |
|--|--|--|--|--|--|--|---|---|
| P6R | DL | 10 | 840 | WH | P | Z10 | U | IEM6 |
| P6R LyteProfile 6-inch Round downlight | DL Downlight LW Lensed Wall Wash SL Shower light ⁴ (non-conductive lens) | 10 1000lm 15 1500lm 20 2000lm 25 2500lm 30 3000lm 35 3500lm | 827 80CRI / 2700K 830 80CRI / 3000K 835 80CRI / 3500K 840 80CRI / 4000K 850 80CRI / 5000K | CL Specular clear CC Comfort clear CD Comfort clear diffuse WH White (matte) BK Black (matte) WHAMF White (gloss antimicrobial) | - White (matte) B Black (matte) P Polished (matches aperture) - White (matte) B Black (matte) - White (gloss) | Z10 0-10V 1% L Lutron LDE1 EcoSystem (fade-to-black) P Power over Ethernet (PoE) | U 120/277V 3 347V ^{5,6} (0-10v only) U 120/277/ 347V E Ethernet 48V DC | - None R Retrofit (not compatible with IEM6) IEM6 Trim mounted EM test switch ⁷ BAC Meets the requirements of the Buy American Act of 1933 (BAA)** |
| | | | | | | Only compatible with 1000 (10) to 2500 (25) lumen configurations | | |

Accessories (Not currently BAA-compliant - learn more on page 2)

- SBA** Interact Ready System Bridge Accessory with integral occupancy and daylight sensor (compatible with all 0-10V options, see SBA spec sheet)⁷
- CAEM6** Field installable Bodine BSL6 6W battery pack with self-test/self-diagnostic for use with new construction frames, 120-277V
- 7925** 6" sloped ceiling adapter (refer to SCA spec sheet for slope options)
- AMS** ActiLume multi-sensor (optional accessory for PoE configurations)

- Universal 120-347V is for 0-10v (Z10) dimming configurations only. For 347V non-Z10 dimming, order 347V (3) frame with (U) light engine/trim.
- Emergency (EM6) frame is compatible with reflector mounted test switch when light engine is ordered with IEM6 option code (not compatible with 347V or Power over Ethernet configurations).
- Interact Pro (RADIO) requires above ceiling access.
- Shower light (SL) in only available with White (WH) reflector finish.
- Specify standard UNV frame for use with 347V light engines
- The 347V light engine voltage option is only available with Z10 dimming option. For other dimming protocols order UNV (U) light engine and 347V (3) frame.
- Requires IRT9015 IR remote and Interact Pro App for commissioning.
- IEM6 option available on DL style only.

** Failure to properly select the "BAC" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.



P6R LyteProfile 6"

Round Downlight & Lensed Wall Wash

Features

Optics

- Provides a 60° cutoff (physical and reflected)
- Wide beam distribution for general illumination
- Spun and anodized reflectors available in specular (clear), semi-specular (comfort clear and diffuse finishes). Also available in white and black painted finishes.

Quality of light

- Consult factory for RAL finishes
- Color consistency: 3 SDCM
- 80 CRI minimum

Construction (New Construction)

- Galvanized stamped steel for dry / plaster ceilings.
- Pre-installed telescoping mounting bars (13"-24")
- Frame accommodates C- channel, black iron, and 3/4" EMT for mounting distances greater than 24" between joists.
- Manufactured from 20 gage galvanized steel construction with rolled edge aperture to guide cutting tools for perfect hole cutting.

**Max ceiling thickness is 2" (51 mm).
Including PoE frame 4.88" (124 mm).**

Patented install Mounting frame

- Pre-installed mounting bars allow for fast and tool-less install into T-grid & hat channel ceilings
- Close-cut aperture design eliminates an undesired gap between ceiling material and reflector.
- Simple plug-and-play connection between frame and light engine from below the ceiling allows for:
 - Easy upgrades
 - Technology changes
 - Repairs and troubleshooting

Dimming

- Advance 0-10V 1% dimming
- Lutron Hi-lume EcoSystem H Series 1% dimming
- EldoLED ECOdrive Dali 1% dimming
- EldoLED SOLOdrive 0-10V 0.1% dimming
- EldoLED DMX POWERdrive

Light engine

Quick connect power pack allow for easy installation and replacement from below ceiling with no need for additional wiring. This allows for:

- Frame and ceiling installation to be performed while still finalizing details such as lumen packages, CCT and control type.
- Easy replacement of electronics at end of life with minimal wasted material and labor required.
- Ease and upgradability of technology.
- Lumen Maintenance: L80 at 60,000 hours.
- 347V light engines are 0-10v dimming only and include dedicated 347V driver for use with universal 120/277/347V (U) frames. For 347V and non-0-10v dimming, order (U) light engine and 347V (3) frame (includes step down transformer).

Emergency

Bodine BSL6 6W battery pack with self-test/diagnostic functionality. Factory or field mounted to frame.

- For trim with integral emergency test switch, order light engine with IEM6 option (ex: P6RDL20835CDZ10UIEM6). DL or SL styles only.
- For remote ceiling mounted test switch, order standard light engine (ex: P6RDL20835CDZ10U). Optional accessory ceiling mounting plate available (CAEM6TSCP) for remote mounted test switch.
- Refer to Calculate-LyteProfile-EasyLyte Emergency Battery Pack specification sheet for more details.

Retrofit

- Easily updates legacy LyteProfile LED downlights to the latest technology. Includes light engine, trim, and driver mounted on cover plate that mounts to previous generations of LyteProfile LED luminaires. Order with R option code at end of light engine/trim catalog number.

Power over Ethernet

Powered via Philips PoE lighting controller: complies with FCC rules per Title 47 part 15 (Class A) for EMI / RFI (conducted & radiated). PoE lighting controller accessible from below ceiling.

Options and Accessories

Sloped ceilings: Compatible with sloped ceiling adapters (see SCA spec sheet).

Field Installed Emergency: Refer to Calculate-LyteProfile-EasyLyte Emergency Battery Pack specification sheet for more details.

CAEM6: Field install EM6 kit with Bodine BSL6 6W battery pack with self-test/self-diagnostic, mounts to new construction frames. Includes remote ceiling plate for test switch. To mount test switch to trim for new construction frame, order light engine with IEM6 option code (e.g. P6RDL20835CDZ10UIEM6).

CAEM6TSCP: Ceiling cover plate for remote mounted EM6 test switch. 1/2" (25mm) hole, 4 3/8" (109mm) x 2 3/4" (69mm) rectangular. Includes two mounting screws.

ENERGY STAR® exceptions

- 500lm configurations
- Black finishes
- PoE drivers

Labels and Listings

- cULus listed for wet locations
- CCEA (frames with *LC suffix)
- ENERGY STAR® certified
- RoHS certified

Warranty



5 year limited warranty
Visit [Signify.com/warranties](https://www.signify.com/warranties)
for more information on Signify's
standard 5-year limited warranty
on complete luminaire systems.

Finishes



Specular clear

Most specular and therefore most efficient finish, delivers maximum photometric performance but can produce a mirror image effect of the interior space.



Comfort clear

Semi-specular finish that softens the light at the source of the reflector and creates a subtle, even luminance from the reflector cone.



Comfort clear diffuse

Slightly diffuse clear finish, which eliminates iridescence and reduces the mirror image effect inherent with a specular finish.



White

Brightest aperture when illuminated and provides the smoothest transition to most ceilings when off (white is only available with a white flange).



Black

Specular finish that provides the lowest aperture brightness possible and reduces source identification in a ceiling significantly (black is only available with a black flange).

P6R LyteProfile 6"

Round Downlight & Lensed Wall Wash

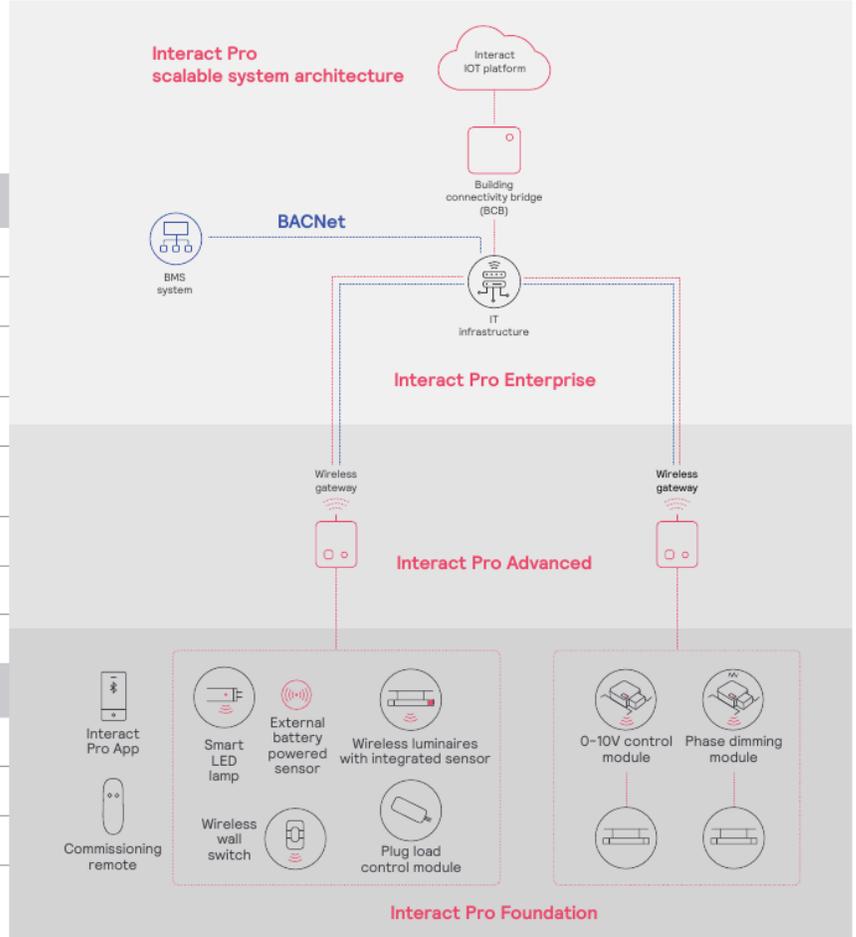
interact

| Interact Pro scalable system | | | |
|---|------------|----------|------------|
| | Foundation | Advanced | Enterprise |
| Dimming, grouping, and zoning | ✓ | ✓ | ✓ |
| Bluetooth and ZigBee enabled | ✓ | ✓ | ✓ |
| Motion sensing and daylight harvesting | ✓ | ✓ | ✓ |
| Integration with 0-10V and phase dimming fixtures | ✓ | ✓ | ✓ |
| Code compliance | ✓ | ✓ | ✓ |
| Granular dimming and dwell time | ✓ | ✓ | ✓ |
| Energy reporting and monitoring | | ✓ | ✓ |
| Scheduling | | ✓ | ✓ |
| Demand response | | ✓ | ✓ |
| BMS integration (BACnet) | | | ✓ |
| Floor plan visualization | | | ✓ |
| IoT sensors for wellness | | | ✓ |
| IoT Apps for productivity | | | ✓ |

Currently supported maximum system size

To be able to design the lighting system correctly for the customer, it is important to know the prime characteristics of the system, its possibilities and limitations.

| System level | |
|--|---------------------|
| Total number of gateways | Unlimited |
| Total number of devices | 200 per network |
| • luminaires with integrated sensors | 150 |
| • smart TLEDS | 150 |
| Total number of ZGP devices (sensors and switches) | 50 |
| • sensors | 30 |
| • switches | 50 |
| • zones and groups | 64 |
| Group level | |
| Recommended number of lights | 40 (recommended 25) |
| Number of ZGP devices | 5 |
| Number of scenes | 16 |



P6R LyteProfile 6"

Round Downlight & Lensed Wall Wash

Wireless Controls Options

Interact Pro scalable sensor

(System Bridge Accessory with –CS option):

- CS is a connected sensor with integral occupancy and daylight sensing and supports wireless mesh connectivity.
- The sensor works in the Foundation mode (similar to SpaceWise) when configured without a gateway or in an Interact Pro Advanced or Enterprise mode if a compatible gateway is used.
- Interact Pro includes an App, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.
- Startup is implemented via Interact Pro App (Android or iPhone) & Bluetooth connectivity. The App provides flexibility to choose between a gateway or non gateway mode for setup.
- Setup with the gateway requires wired internet access to the gateway. It is possible to add a gateway at a later point.
- Prepare project configuration steps remotely and use IRT9015 remote onsite to identify and group devices together.
- Compatible with:
 - UID8451/10 wireless dimmer switch
 - SWS200 wireless scene switch
 - Battery powered IP42 presence sensor OCC sensor IA CM WH 10/1
 - Battery powered IP42 presence & daylight sensor OCC-DL sensor IA CM IP42 WH
 - Battery powered IP65 presence sensor OCC sensor IA CM IP65 WH
 - Battery powered IP65 presence & daylight sensor OCC-DL sensor IA CM IP65 WH
- For more information on Interact Pro visit: www.interact-lighting.com/interactproscalablesystem.

Interact Pro Enterprise

(System Bridge Accessory with –SB option):

- A wireless IoT connected lighting solution for large enterprises that span across multiple floors, buildings and require multiple gateways.
- View all your projects under one dashboard and easily compare insights from multiple projects in one view.
- Compatible with UID8451/10 wireless dimmer switch, SWS200 wireless scene switch, wireless Occ sensor (OCC SENSOR IA CM IP42 WH 10/1) and wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1) and wireless Occupancy or Daylight & Occupancy sensors available.
- Use Interact software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- SB option in addition to occupancy and daylight sensing supports advanced IoT capabilities such as people estimation analysis, desk level temperature & humidity sensing, noise classification, and BLE beacon.
- Requires compatible Gateway and internet connectivity for commissioning.
- For more information, visit: www.interact-lighting.com/office or www.usa.lighting.philips.com/systems/system-areas/offices.

Emergency Options (ER100)

(System Bridge Accessory with –ER100 option):

- Power Sensing (Factory default) – Recommended UL924 option requires unswitched power sense line, absence of voltage on the normal circuit triggers luminaire to 100% output
- Power Interruption Detection (Field option) – Detects AC power interruption >30ms triggers 90 minute emergency mode with luminaire at 100% output

Radio only sensor (RADIO):

- Integral RADIO only sensor simply enables wireless mesh connectivity to the luminaire without any occupancy or daylight sensing.
- Ideal for applications where sensing functionality is managed by other Interact devices and the luminaire only needs to have wireless connectivity.

Wired Controls Options

Interact Office Wired (PoE):

- PoE based IoT connected lighting solution for large enterprises that span across multiple floors, buildings and require multiple gateways.
- Use Interact Office software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- Supports advanced IoT Apps on Personal Control, Space Management, wayfinding, room/desk reservation and offers open APIs for light control and data exchange.
- PoE lighting controller is accessible from below.
- Integral sensor option for occupancy sensing (PIR) and/or daylight harvesting available for additional energy savings.

- Optional integral emergency controller and battery pack provides 600lm nominal output.
- Test switch and indicator light mounted on side of chassis on one end.
- Emergency battery has a 3 month pre-installed shelf life, and must be stored and installed in environments of 20C to 30C (-4F to 86F) ambient, and 45-85% relative humidity.
- For more information on Interact Office Wired, visit: www.interact-lighting.com/office or www.usa.lighting.philips.com/systems/system-areas/offices.

Interact Office Wired (PoE), Static White:

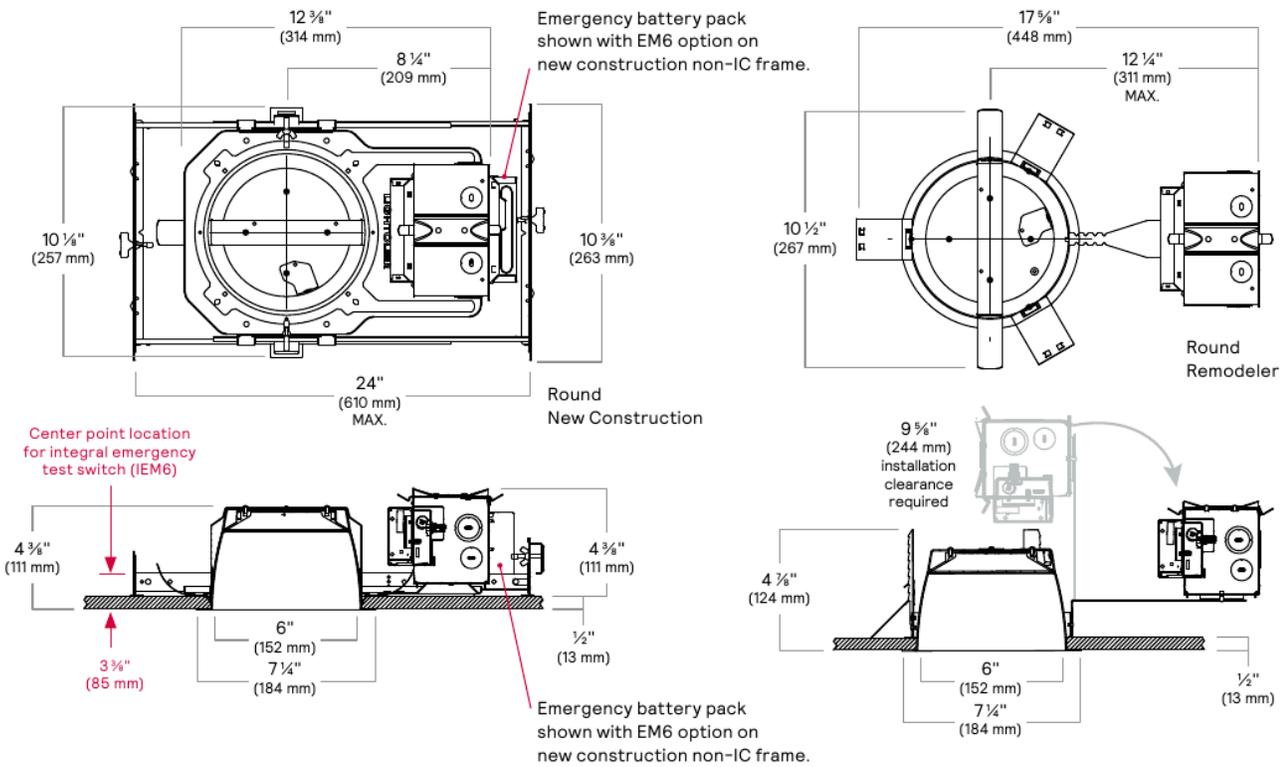
- A wireless IoT connected lighting solution for large enterprises that span across multiple floors, buildings and require multiple gateways.

- View all your projects under one dashboard and easily compare insights from multiple projects in one view.
- Compatible Zigbee Green Power wall dimmer and wireless Occupancy or Daylight & Occupancy sensors available.
- Use Interact Office software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- Supports advanced IoT Apps on wayfinding, room/desk reservation and offers open APIs
- Requires compatible Interact Office Gateway and internet connectivity for commissioning.
- For more information on Interact Office Wired, visit: www.interact-lighting.com/office or www.usa.lighting.philips.com/systems/system-areas/offices.

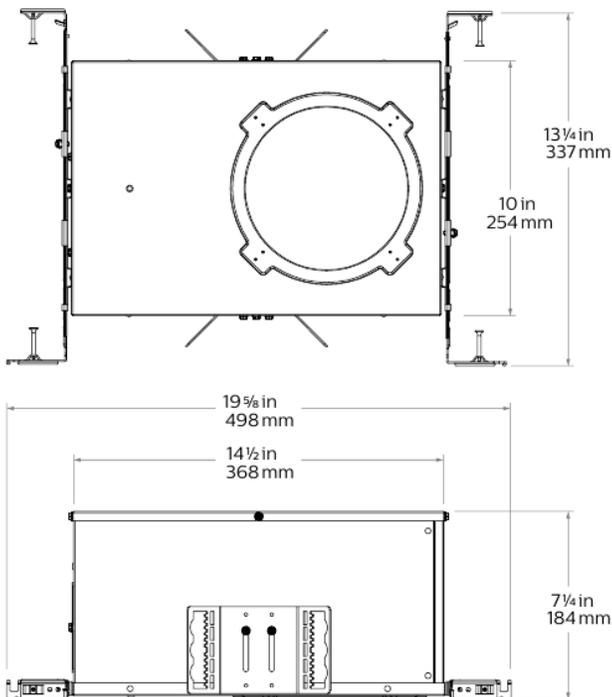
P6R LyteProfile 6"

Round Downlight & Lensed Wall Wash

Dimensions



AirSeal (A)



Electrical

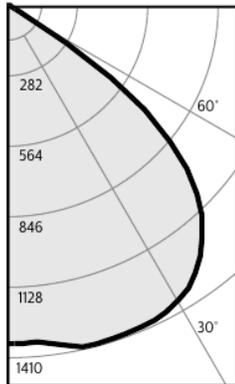
| Product | Input Volts | Input Frequency | Input Current (A) | Input Power (W) |
|--------------|-------------|-----------------|-------------------|-----------------|
| P6*10*Z10U/3 | 120 | 50/60Hz | 0.083 | 10 |
| | 277 | | 0.038 | 10 |
| P6*15*Z10U/3 | 120 | 50/60Hz | 0.125 | 15 |
| | 277 | | 0.061 | 15 |
| P6*20*Z10U/3 | 120 | 50/60Hz | 0.17 | 21 |
| | 277 | | 0.078 | 21 |
| P6*25*Z10U/3 | 120 | 50/60Hz | 0.21 | 25 |
| | 277 | | 0.096 | 26 |
| P6*30*Z10U/3 | 120 | 50/60Hz | 0.27 | 32 |
| | 277 | | 0.12 | 33 |
| P6*35*Z10U/3 | 120 | 50/60Hz | 0.32 | 38 |
| | 277 | | 0.14 | 37 |
| P6*10*LU | 120 | 50/60Hz | 0.093 | 10 |
| | 277 | | 0.046 | 10 |
| P6*15*LU | 120 | 50/60Hz | 0.13 | 15 |
| | 277 | | 0.07 | 15 |
| P6*20*LU | 120 | 50/60Hz | 0.175 | 20 |
| | 277 | | 0.085 | 21 |
| P6*25*LU | 120 | 50/60Hz | 0.21 | 25 |
| | 277 | | 0.099 | 25 |
| P6*30*LU | 120 | 50/60Hz | 0.274 | 31 |
| | 277 | | 0.122 | 31 |
| P6*35*LU | 120 | 50/60Hz | 0.32 | 36 |
| | 277 | | 0.14 | 37 |

P6R LyteProfile 6"

Round Downlight & Lensed Wall Wash

P6RDL30835CLZ10U • 30W LED, 80CRI, 3500K

Candela Curves



| Angle | Mean CP | Lumens |
|-------|---------|--------|
| 0 | 1361 | |
| 5 | 1362 | 131 |
| 10 | 1391 | |
| 15 | 1408 | 398 |
| 20 | 1403 | |
| 25 | 1397 | 644 |
| 30 | 1372 | |
| 35 | 1316 | 820 |
| 40 | 1218 | |
| 45 | 1073 | 816 |
| 50 | 852 | |
| 55 | 506 | 428 |
| 60 | 60 | |
| 65 | 12 | 17 |
| 70 | 6 | |
| 75 | 3 | 4 |
| 80 | 2 | |
| 85 | 1 | 1 |
| 90 | 0 | |

Single unit data

| Height to Lighted Plane | Initial center beam foot-candles | Beam dia. (ft)* |
|-------------------------|----------------------------------|-----------------|
| 5' | 54 | 7.5' |
| 6' | 38 | 9.0' |
| 7' | 28 | 10.5' |
| 8' | 21 | 12.0' |
| 9' | 17 | 13.5' |

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

| Spacing on center | Initial center beam foot-candles | Watts per sq.ft. |
|-------------------|----------------------------------|------------------|
| 5' | 141.2 | 1.34 |
| 6' | 92.7 | 0.88 |
| 7' | 66.2 | 0.63 |
| 8' | 55.2 | 0.52 |
| 9' | 44.1 | 0.42 |

38"x38"x10" Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Coefficients of utilization

| Ceiling | 80% | | | | 70% | | 50% | | 30% | | 0% | |
|-------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 70 | 50 | 30 | 10 | 50 | 10 | 50 | 10 | 50 | 10 | 0 | |
| Wall | 70 | 50 | 30 | 10 | 50 | 10 | 50 | 10 | 50 | 10 | 0 | |
| RCR | Zonal cavity method - Effective floor reflectance = 20% | | | | | | | | | | | |
| Room Cavity Ratio | 0 | 119 | 119 | 119 | 119 | 116 | 116 | 111 | 111 | 106 | 106 | 100 |
| | 1 | 112 | 108 | 105 | 102 | 106 | 101 | 102 | 98 | 98 | 95 | 90 |
| | 2 | 104 | 98 | 93 | 88 | 96 | 87 | 93 | 85 | 90 | 83 | 80 |
| | 3 | 97 | 88 | 82 | 77 | 87 | 76 | 84 | 75 | 81 | 73 | 70 |
| | 4 | 90 | 80 | 72 | 67 | 78 | 66 | 76 | 66 | 74 | 65 | 62 |
| | 5 | 83 | 72 | 64 | 59 | 71 | 58 | 69 | 58 | 67 | 57 | 55 |
| | 6 | 77 | 65 | 58 | 52 | 65 | 52 | 63 | 51 | 61 | 51 | 49 |
| | 7 | 72 | 60 | 52 | 46 | 59 | 46 | 57 | 46 | 56 | 46 | 44 |
| | 8 | 67 | 55 | 47 | 42 | 54 | 41 | 53 | 41 | 51 | 41 | 39 |
| | 9 | 62 | 50 | 43 | 38 | 50 | 37 | 48 | 37 | 47 | 37 | 35 |
| | 10 | 58 | 46 | 39 | 34 | 46 | 34 | 45 | 34 | 44 | 34 | 32 |

Zonal lumens & percentages

| Zone | Lumens | %Luminaire |
|------|---------|------------|
| 0-30 | 1173.33 | 36.0% |
| 0-40 | 1993.21 | 61.2% |
| 0-60 | 3236.94 | 99.3% |
| 0-90 | 3258.47 | 100.0% |

CRI and CCT adjustment factors

| |
|---------------------|
| 90 CRI 2700K = 84% |
| 80 CRI 2700K = 100% |
| 80 CRI 3000K = 100% |
| 80 CRI 3500K = 105% |
| 80 CRI 4000K = 109% |

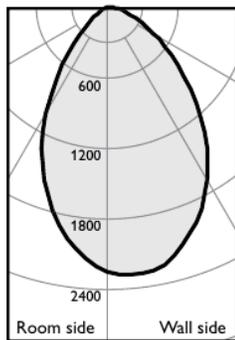
Report!: 1552GFR

Output lumens: 3258lms
 Spacing Criterion: 1.5
 Beam Angle: 101°
 Input Watts²: 30.3W

Efficacy: 107.5lm/w
 CCT³: 3500K
 CRI: 80min

P6RLW30835CLPZ10U • 30W LED, 80CRI, 3500K

Candela Curve



Report!: 1560GFR
 Efficacy: 104.6 lm/w
 Output lumens: 3177 lms
 Input watts²: 30.3 W
 CRI: 80 min
 CCT³: 3500K

Multiple unit data

| Footcandles on wall | 2' from wall | | |
|---------------------|--------------|----|-----|
| | 3' on ctr. | | |
| 1 | 74 | 48 | 74 |
| 2 | 111 | 91 | 111 |
| 3 | 96 | 90 | 96 |
| 4 | 74 | 72 | 74 |
| 5 | 56 | 56 | 56 |
| 6 | 43 | 44 | 43 |
| 7 | 35 | 35 | 35 |
| 8 | 29 | 29 | 29 |
| 9 | 24 | 24 | 24 |
| 10 | 21 | 21 | 21 |
| 12 | 17 | 17 | 17 |
| 14 | 15 | 15 | 15 |

Multiple unit data

| Footcandles on wall | 3' from wall | | |
|---------------------|--------------|----|----|
| | 3' on ctr. | | |
| 1 | 28 | 25 | 28 |
| 2 | 56 | 54 | 56 |
| 3 | 69 | 67 | 69 |
| 4 | 67 | 67 | 67 |
| 5 | 59 | 59 | 59 |
| 6 | 50 | 50 | 50 |
| 7 | 42 | 42 | 42 |
| 8 | 36 | 36 | 36 |
| 9 | 31 | 31 | 31 |
| 10 | 27 | 27 | 27 |
| 12 | 21 | 21 | 21 |
| 14 | 18 | 18 | 18 |

Multiple unit data

| Footcandles on wall | 3' from wall | | |
|---------------------|--------------|----|----|
| | 4' on ctr. | | |
| 1 | 24 | 18 | 24 |
| 2 | 46 | 38 | 46 |
| 3 | 55 | 49 | 55 |
| 4 | 52 | 49 | 52 |
| 5 | 46 | 45 | 46 |
| 6 | 38 | 38 | 38 |
| 7 | 33 | 33 | 33 |
| 8 | 28 | 28 | 28 |
| 9 | 24 | 24 | 24 |
| 10 | 21 | 21 | 21 |
| 12 | 17 | 17 | 17 |
| 14 | 14 | 15 | 14 |

1. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
2. Wattage: controlled to within 5%
3. Correlated Color Temperature: within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.



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ALZ - Landscape / Path Light / Inground

LANDSCAPE / PATH LIGHT / INGROUND**Exterior Parking Lot Type III Prevail...**

Manufacturer: Cooper Lighting - Lumark
Style/Series: PFPRV Prevail LED Pole and Fixture Combo

Sales Rep**Primary**

Kathleen Kenny
Email: kathleen.kenny@cooperlighting.com
Office Phone: (678) 447-5208

Attributes

Exterior Parking Lot Type III Prevail with 25' Pole

Model: PFPRV-1-C25-T3-15-N/AB-BK

DIMENSIONS

Length: 26-13/16" [681mm]
Width: 13-15/16" [354mm]
Height: 25'-0"

MATERIAL / FINISH

Finish: Black

MISCELLANEOUS

Lead Time: 4-6 weeks
Warranty: Five-year warranty

CUSTOM FIELDS

Trim: Black
Reflector: Type IV
Lens/Shade: N/A
Mount: Pole Mount
On Dimming System: No
Dimming Type: Standard with 0-10V Dimming
Lamp Type: LED
Lamp Kelvin: 4000K
Delivered Lumens (LED) or Mean Lumens (Non-LED): 17,100
Nominal Lumens
Lamp Quantity: (2)
Options: PER7=NEMA 7PIN Twistlock Photocontrol Receptacle
Voltage: 120-277V



DESCRIPTION

The Prevail™ LED pole and fixture combination makes selection and installation of poles and fixtures simple. Included is the die-cast Prevail area, site and roadway luminaire with standard mounting arm, square straight steel pole, anchor bolts, base cover, template and hardware. Stock configurations are available in single and dual fixture combinations. The Prevail luminaire delivers a new level of versatility and value in patent pending, architectural design that delivers energy savings greater than 85% and replaces 150-450W metal halide fixtures. The Prevail fixture and pole combo is ideal for general area/site lighting applications.

SPECIFICATION FEATURES

Construction

Construction is comprised of a heavy-duty, single-piece die-cast aluminum housing in dark bronze polyester powder paint. The die-cast aluminum door is tethered to provide easy access to the driver if replacement is required. The optics is mounted on a versatile, aluminum plate that dissipates heat from the LEDs resulting in longer life of the fixture. The fixture is IP66 and 3G vibration rated (ANSI C136.31).

Optics

Available in Type III and IV distributions with lumen packages ranging from 7,000 to 20,000 nominal lumens. Light engine configurations consist of 1 or 2 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L91/50,000 hours at 25°C) per IESNA TM-21. For the ultimate level of spill light control, an optional house side shield accessory can be field or factory installed.

Electrical

Available in 120-277V 50/60Hz. 10kV/10kA surge protection standard. 0-10V dimming driver is standard with leads external to the fixture to accommodate controls capability such as dimming and occupancy. Suitable for ambient temperatures from -40°C to 40°C.

Mounting

The versatile, patent pending, standard mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Removal of the door on the standard mounting arm enables wiring of the fixture without having to access the driver compartment. A knock-out on the standard mounting arm enables round pole mounting.

Pole

Shaft is one-piece construction ASTM A500 grade "B" steel, shot blasted and finished in dark bronze polyester powder coat. Anchor base is fabricated from ASTM grade steel. ASTM A366 steel full base cover is provided to enclose base plate and anchor bolts. Anchor bolts are per ASTM A576 with two nuts, two flat washers, and one lock washer. Hardware and threaded portion of bolt are hot dip galvanized. 3" hook for 3/4" bolt. 4" hook for 1" bolt.

Finish

Housing and cast parts finished in five-stage super TGIC polyester bronze powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear.

Warranty

Five-year warranty.

| | | |
|-------------|--|------|
| Catalog # | | Type |
| Project | | |
| Comments | | Date |
| Prepared by | | |

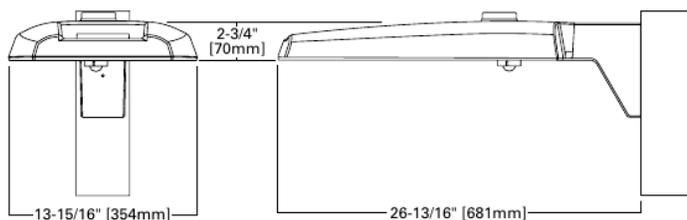


PFPRV PREVAIL POLE AND FIXTURE COMBO

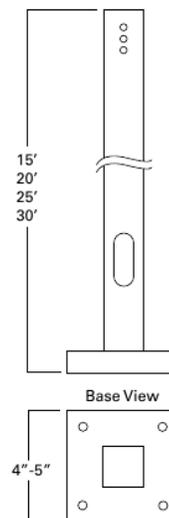
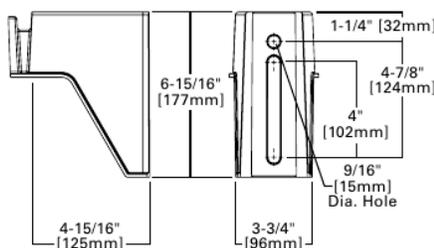
LED

POLE AND FIXTURE COMBO

DIMENSIONS



POLE MOUNT ARM



CERTIFICATION DATA

UL and cUL Wet Location Listed
IP66-Rated
3G Vibration Rated
ISO 9001

ENERGY DATA

Electronic LED Driver
0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 and 60Hz,
347V/60Hz, 480V/60Hz
-40°C Minimum Temperature Rating
+40°C Ambient Temperature Rating

EPA

Effective Projected Area (Sq. Ft.): 0.75
(1 fixture)

SHIPPING DATA

Approximate Net Weight:
20lbs. [9.09 kgs.] (1 fixture)

CONTROL OPTIONS

0-10V (D)

This fixture is offered standard with 0-10V dimming wire leads for use with a lighting control panel or other control method.

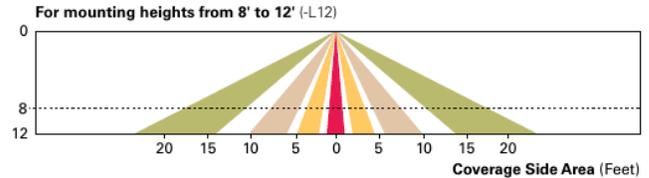
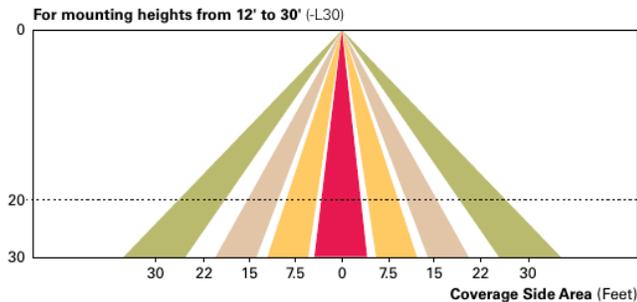
Photocontrol (PER and PER7)

Photocontrol receptacles provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PER7 receptacle.

Dimming Occupancy Sensor (MSP/DIM-LXX)

These sensors are factory installed in the luminaire housing. When a sensor for dimming operation (/DIM) is selected, the luminaire will dim down to approximately 50 percent power after five minutes of no activity detected. When activity is detected, the luminaire returns to full light output.

These occupancy sensors include an integral photocell that can be activated or inactivated with the programming remote / configuration tool for "dusk-to-dawn" control or "daylight harvesting". Note: For MSP sensors, the factory preset is ON (Enabled). The programming remote / tool is a wireless tool that can be utilized to change the dimming level, time delay, sensitivity and other parameters. A variety of sensor lenses are available to optimized the coverage pattern for mounting heights from 8'-30'.



POWER AND LUMENS

| Light Engine | | C15 | C25 | C40 | C60 |
|--------------------------|------------|----------|----------|----------|----------|
| Nominal Power (Watts) | | 52W | 96W | 131W | 153W |
| Input Current @ 120V (A) | | 0.43 | 0.80 | 1.09 | 1.32 |
| Input Current @ 277V (A) | | 0.19 | 0.35 | 0.48 | 0.57 |
| Type III | Lumens | 7,111 | 13,183 | 17,144 | 20,050 |
| | BUG Rating | B1-U0-G2 | B2-U0-G3 | B3-U0-G4 | B3-U0-G4 |
| Type IV | Lumens | 7,088 | 13,140 | 17,087 | 19,984 |
| | BUG Rating | B1-U0-G3 | B2-U0-G4 | B2-U0-G4 | B3-U0-G5 |

LUMEN MAINTENANCE

| Ambient Temperature | TM-21 Lumen Maintenance (50,000 Hours) | Theoretical L70 (Hours) |
|---------------------|--|-------------------------|
| 25°C | > 91.30% | > 194,000 |
| 40°C | > 87.59% | > 134,000 |

LUMEN MULTIPLIER

| Ambient Temperature | Lumen Multiplier |
|---------------------|------------------|
| 10°C | 1.02 |
| 15°C | 1.01 |
| 25°C | 1.00 |
| 40°C | 0.99 |

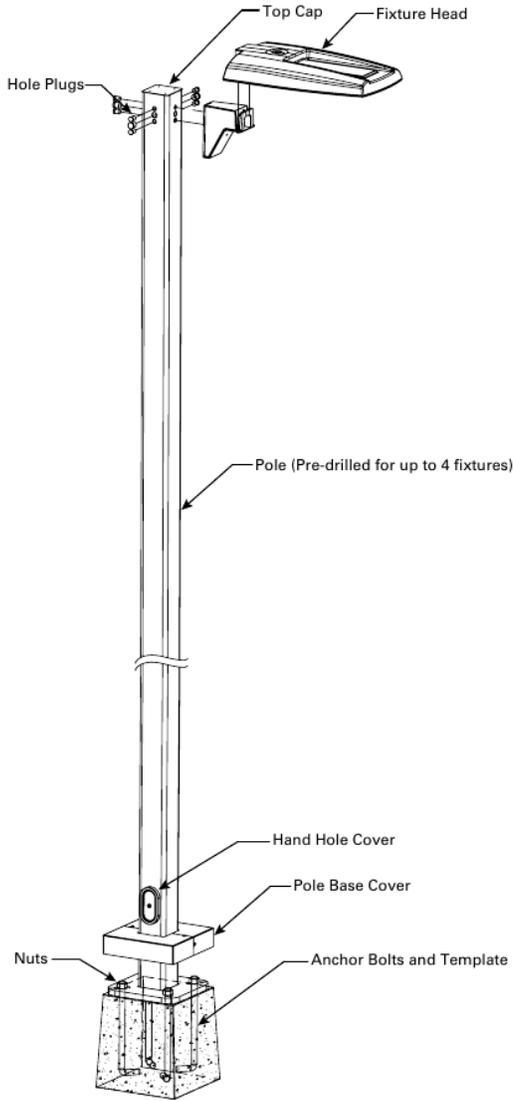
ORDERING INFORMATION

Sample Number: PFPRV-1-C25-T3-15-N/AB

| Series ^{1,2} | Number of Fixtures | Light Engine | Distribution | Pole Height | Maximum Wind Zone (MPH) | Options (Add as Suffix) | Accessories (Order Separately) |
|--------------------------------------|--------------------------|---|---------------------------|--------------------------------------|---------------------------|---|--|
| PFPRV=Prevail Pole and Fixture Combo | 1=1 2=2 3=3 4=4 | C15=(1 LED) 7,100 Nominal Lumens C25=(2 LED) 13,100 Nominal Lumens C40=(2 LED) 17,100 Nominal Lumens C60=(2 LED) 20,000 Nominal Lumens | T3=Type III T4=Type IV | 15=15' 20=20' 25=25' 30=30' | Blank=80 9=90 0=100 | N/AB=No Anchor Bolts (Used when ordered separately) HSS=House Side Shield ³ MSP/DIM-L12=Integrated Sensor for Dimming Operation, 8' - 12' Mounting Height MSP/DIM-L30=Integrated Sensor for Dimming Operation, 12' - 30' Mounting Height PER=NEMA 3PIN Twistlock Photocontrol Receptacle ⁴ PER7=NEMA 7PIN Twistlock Photocontrol Receptacle ⁴ | HS/VERD=House Side Shield ³ |

NOTES: 1 4000K CCT, standard bronze, 120-277V, 0-10V dimming. 2 Standard mount arm included with fixture. Supplied with straight steel shaft, anchor bolts, template, base cover and hardware. 3 HSS not available with C60 lumen package. Ordered as an option, it will come factory-installed. Ordered as a field-installable accessory, must order quantity one per optic/LED. 4 Not available with MSP options.

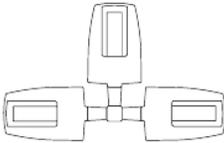
PREVAIL POLE AND FIXTURE COMBO

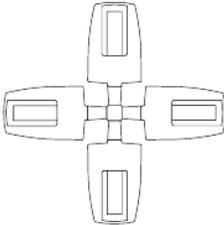


INCLUDED POLE REFERENCE TABLES

| 1 Fixture (EPA= 0.75) | | Wind Zone (MPH) | | |
|---|--------------------|--------------------------|--------------------------|-----|
|  | Pole Height (Feet) | 80 | 90 | 100 |
| | 15 | SSS4A15SFM4 ¹ | | |
| | 20 | SSS4A20SFM4 ¹ | | |
| | 25 | SSS4A25SFM4 ¹ | SSS5A25SFM4 ² | |
| | 30 | SSS5A30SFM4 ² | SSS5M30SFM4 ² | |

| 2 Fixtures (EPA= 1.50) | | Wind Zone (MPH) | | |
|---|--------------------|--------------------------|--------------------------|-----|
|  | Pole Height (Feet) | 80 | 90 | 100 |
| | 15 | SSS4A15SFM4 ¹ | | |
| | 20 | SSS4A20SFM4 ¹ | | |
| | 25 | SSS4A25SFM4 ¹ | SSS5A25SFM4 ² | |
| | 30 | SSS5A30SFM4 ² | SSS5M30SFM4 ² | |

| 3 Fixtures (EPA= 2.25) | | Wind Zone (MPH) | | |
|--|--------------------|--------------------------|--------------------------|-----|
|  | Pole Height (Feet) | 80 | 90 | 100 |
| | 15 | SSS4A15SFM4 ¹ | | |
| | 20 | SSS4A20SFM4 ¹ | | |
| | 25 | SSS4A25SFM4 ¹ | SSS5A25SFM4 ² | |
| | 30 | SSS5A30SFM4 ² | SSS5M30SFM4 ² | |

| 4 Fixtures (EPA= 3.00) | | Wind Zone (MPH) | | |
|---|--------------------|--------------------------|--------------------------|-----|
|  | Pole Height (Feet) | 80 | 90 | 100 |
| | 15 | SSS4A15SFM4 ¹ | | |
| | 20 | SSS4A20SFM4 ¹ | | |
| | 25 | SSS4A25SFM4 ¹ | SSS5A25SFM4 ² | |
| | 30 | SSS5A30SFM4 ² | SSS5M30SFM4 ² | |

- NOTES:**
 1. Uses hardware kit POLSSHWC4FCHHP.
 2. Uses hardware kit POLSSHWC5FCHHP.

LANDSCAPE / PATH LIGHT / INGROUND**Crosstour LED - Ground Mount, Floodli...**

Manufacturer: Cooper Lighting - Lumark
Style/Series: Crosstour LED Floodlight Kit

Sales Rep**Primary**

Kathleen Kenny
Email: kathleen.kenny@cooperlighting.com
Office Phone: (678) 447-5208

Attributes

Crosstour LED - Ground Mount, Floodlight Kit LED

Type: Floodlight, Ground Mount
Model: ATO-XTORFLD-KNC-W-740

DIMENSIONS

Width: 5-3/4"
Length: 6-3/4"
Height: 3-5/8"

MATERIAL / FINISH

Finish: Black
Material Composition: Die-cast Aluminum

MISCELLANEOUS

Lead Time: Stock to 4 weeks
Warranty: 5 Year Warranty

CUSTOM FIELDS

Trim: N/A
Reflector: N/A
Lens/Shade: N/A
Mount: Ground
On Dimming System: No
Dimming Type: N/A
Lamp Type: LED
Lamp Kelvin: 4000K
Lamp CRI: 70
Delivered Lumens (LED) or Mean Lumens (Non-LED): 990
Lamp Quantity: N/A
Lamp Model #: N/A
Lamp Configuration: N/A
Fixture Input (Max. Watts): 12W
Voltage: 120/277

Notes

Efficacy: 116.83
Lamp Life/Fixture Life: 60000

DESCRIPTION

The patented Lumark Crosstour™ Floodlight Kit easily attaches to the Crosstour LED Wall Pack luminaire. The floodlight kit converts 12W, 18W, 26W, and 38W Crosstour wall mount luminaires into floodlighting luminaires suitable for ground or wall mount applications. Crosstour LED offers seamless architectural style with super bright energy efficient LEDs. The low-profile, rugged construction of the easy to install knuckle or trunnion base along with stainless steel hardware, visors and impact guards make Crosstour LED an “all-in-one” universal product offering that installs virtually anywhere.

| | | |
|--------------------|--|-------------|
| Catalog # | | Type |
| Project | | |
| Comments | | Date |
| Prepared by | | |

SPECIFICATION FEATURES

Application

The Crosstour LED luminaire with knuckle or trunnion floodlight kit is ideal for floodlight illumination of ground mounted signage, building façade architecture or for wall mount applications where greater forward throw illumination is needed.

Construction

KNUCKLE FLOODLIGHTING BASE: Heavy-duty, die-cast aluminum knuckle base utilizes tooth-lock adjustment mechanism for both solid engagement and easy aiming adjustment. Visual 15° adjustment indicators allow for 180° rotation of the luminaire. Knuckle adjustment is made via the stainless steel screw. Knuckle is 3G vibration rated. Knuckle fits 1/2" NPS available mounting junction box cover (supplied by others) and is secured with supplied locking nut. Attaches directly to the Crosstour LED Wall Mount back box via the supplied magnetic stainless steel hardware.

TRUNNION FLOODLIGHTING BASE: Adjustable heavy-gauge steel trunnion-mount utilizes interlocking slide adjustment mechanism for precise aiming and secure installation. Supplied

standard with 12" of pre-wired SOW 600V wet location rated cord. Visual 15° adjustment indicators allow for 180° rotation of the luminaire. Trunnion base can be lag bolted to any surface and is 3G vibration rated. Quickly attaches to the Crosstour LED Wall Mount back box via the supplied magnetic stainless steel hardware.

Electrical

Three-wire electrical conductor wire is pre-wired to the knuckle base allowing easy wiring to junction box utility power and to the Crosstour LED luminaire. Trunnion base includes 12" SOW cord/whip. The SOW cord is 18AWG and is rated for -40°C to 90°C. SOW cord is highly flexible and features stranded copper conductors, separator and is secured in a thermoplastic elastomeric rubber jacket.

Top Visors and Impact Guards

Supplied with heavy-duty steel top visors that quickly attach to the Crosstour LED Wall Pack 12W, 18W, 26W, and 38W housing via the supplied stainless steel hardware. Crosstour top visors control glare and spill light in all directions. Useful in uplighting

applications to limit light travel above intended wall surface or sign. 1/8" Thick UV stabilized impact guards install directly into the visor via the side-slot lock feature. Useful in protecting the Crosstour LED glass lens from projectile objects when mounted at low levels.

Finish

Crosstour is protected with a five-stage TGIC Super durable carbon bronze or summit white polyester powder coat paint. Premium TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the Crosstour installed life. Options to meet Buy American and other domestic preference requirements.



LUMINAIRE
SOLD SEPERATELY

Crosstour LED Floodlight Kit



CERTIFICATION DATA

(Floodlight Kit Only)
UL/cUL Wet Location Listed
3G Vibration Rated Trunnion

SHIPPING DATA:

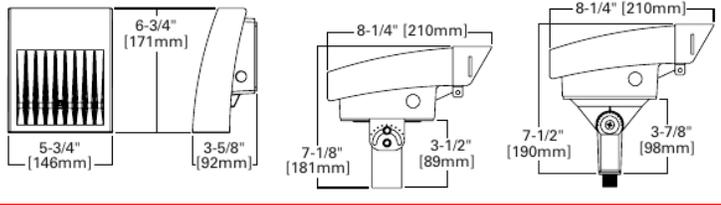
Approximate Net Weight:
1.2 – 1.9 lbs. (0.5 – 0.9 kgs.)

STOCK ORDERING INFORMATION

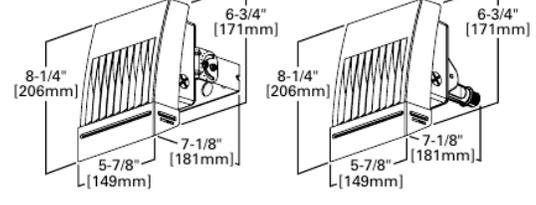
| | | |
|--|---|--|
| Domestic Preferences ¹ | Knuckle Mount Floodlighting Kit | Trunnion Mount Floodlighting Kit |
| [Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act | XTORFLD-KNC=Carbon Bronze Knuckle Base With Locking Nut, Small and Large Top Visors and Impact Shields | XTORFLD-TRN=Carbon Bronze Trunnion Base With 12" Wet Location SOW Cord, Small and Large Top Visors and Impact Shields |

DIMENSIONS

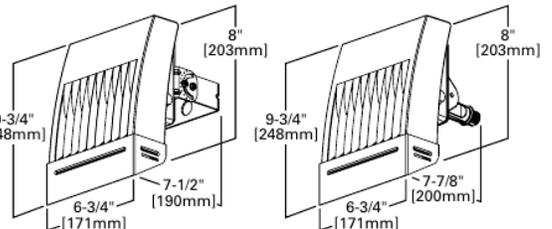
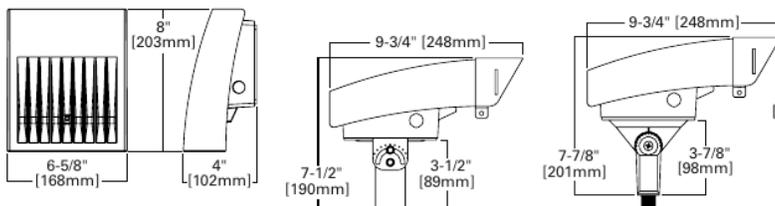
SMALL (12W, 18W and 26W)



WALL MOUNT



LARGE (38W)



POWER AND LUMENS BY FIXTURE MODEL

| LED Information | XTOR1B | XTOR1B-W | XTOR1B-Y | XTOR2B | XTOR2B-W | XTOR2B-Y | XTOR3B | XTOR3B-W | XTOR3B-Y | XTOR4B | XTOR4B-W | XTOR4B-Y |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Delivered Lumens (Wall Mount) | 1,418 | 1,396 | 1,327 | 2,135 | 2,103 | 1,997 | 2,751 | 2,710 | 2,575 | 4,269 | 4,205 | 3,995 |
| Delivered Lumens (With Flood Accessory Kit) ¹ | 1,005 | 990 | 940 | 1,495 | 1,472 | 1,399 | 2,099 | 2,068 | 1,965 | 3,168 | 3,121 | 2,965 |
| B.U.G. Rating ² | B1-U0-G0 | B2-U0-G0 | B2-U0-G0 | B2-U0-G0 |
| CCT (Kelvin) | 5,000 | 4,000 | 3,000 | 5,000 | 4,000 | 3,000 | 5,000 | 4,000 | 3,000 | 5,000 | 4,000 | 3,000 |
| CRI (Color Rendering Index) | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| Power Consumption (Watts) | 12W | 12W | 12W | 18W | 18W | 18W | 26W | 26W | 26W | 38W | 38W | 38W |

NOTES: 1 Includes shield and visor. 2 B.U.G. Rating does not apply to floodlighting.

LUMEN MAINTENANCE

| Ambient Temperature | TM-21 Lumen Maintenance (72,000 Hours) | Theoretical L70 (Hours) |
|---------------------|--|-------------------------|
| XTOR1B Model | | |
| 25°C | > 90% | 255,000 |
| 40°C | > 89% | 234,000 |
| 50°C | > 88% | 215,000 |
| XTOR2B Model | | |
| 25°C | > 89% | 240,000 |
| 40°C | > 88% | 212,000 |
| 50°C | > 87% | 196,000 |
| XTOR3B Model | | |
| 25°C | > 89% | 240,000 |
| 40°C | > 88% | 212,000 |
| 50°C | > 87% | 196,000 |
| XTOR4B Model | | |
| 25°C | > 89% | 222,000 |
| 40°C | > 87% | 198,000 |
| 50°C | > 87% | 184,000 |

CURRENT DRAW

| Voltage | Model Series | | | |
|---------|--------------|--------|--------|--------|
| | XTOR1B | XTOR2B | XTOR3B | XTOR4B |
| 120V | 0.103A | 0.15A | 0.22A | 0.34A |
| 208V | 0.060A | 0.09A | 0.13A | 0.17A |
| 240V | 0.053A | 0.08A | 0.11A | 0.17A |
| 277V | 0.048A | 0.07A | 0.10A | 0.15A |
| 347V | 0.039A | 0.06A | 0.082A | 0.12A |

AS - Aluminum Storefront

ALUMINUM STOREFRONT

Interior and Exterior Aluminum Storef...

Manufacturer: Kawneer North America
Style/Series: Storefront: Trifab VersaGlaze 451T, Front Glazed;
Doors: 190 (Narrow Stile) Entrance Doors

Sales Rep

Primary

Ian Cable

Email: No.Email.38
Office Phone: (63) 552-3541

Attributes

Interior and Exterior Aluminum Storefront Framing, Doors, Door Frames, Lights, and Fixed Windows

Type: Aluminum-Framed Storefront system, thermally-broken

DIMENSIONS

Depth: 4-1/2"
Dimension Explanation: Frame: 2" sightline x 4-1/2" depth; Refer to Design Guideline Drawings for Door & Assembly Dimensions

MATERIAL/FINISH

Material Composition: Aluminum extrusions, complying with ASTM B221, 6063-T6 alloy and temper. Glazing as specified below.
Color: Black
Finish: Anodized complying with AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm; 10 year warranty.

PERFORMANCE

Accessibility Compliance : Comply with ANSI A117.1 and ADA.
Accessories: Entrance door hardware shall be supplied with doors as follows: Continuous Hinges, 780-112 HD, Hager, Kynar finish, color to match door; Closers, surface mounted type, LCN 4041-CUSH, cover to be color to match door; Weather Stripping (3 sides); Bottom Sweep; Handicapped Threshold, clear aluminum mill finish. Provide construction cylinder and replace with final cylinder. Final cylinders, panic devices, electric strikes and card readers as specified in Door Hardware Section within Building Product Manual. Refer to Storefront Door Pull specified in Door Hardware Section within Building Product Manual.
Acoustical Performance: Enhanced OITC and STC Performance available. Comply with the Owner's requirements according to project conditions.
Best Practices: Recycled content of aluminum.
Operation: NA
Quality Standards: AAMA "Storefront and Entrance Manual". 1. ANSI/AAMA 101 "Voluntary Specifications for Aluminum, Vinyl (PVC)

IMAGE NOT
AVAILABLE

and Wood Windows and Glass Doors"

Structural Performance: Design for windload of 30 PSF with maximum deflection in both vertical and horizontal mullions not to exceed 1/175 of span. Water Penetration: ASTM E331 no water penetration at a test pressure of 6.24 PSF. Air Leakage per ASTM E283: Fixed window walls maximum of 0.06 CFM per sq. ft. of total exterior surface areas.

Thermal Performance: System U-factor shall comply with requirements of Authorities Having Jurisdiction.

MISCELLANEOUS

Warranty: 5 years (Structural). For Finish warranties, refer to Finish article above.

CUSTOM FIELDS

Quality Standards: NA

Product: NA

Notes

Product Data Web Link: <https://tinyurl.com/msh53y4y>

Where required, provide safety glass complying with CPSC 16 CFR Part 1201.

Insulating Glass complying with IGCC requirements and as follows:

- Total Thickness: 1"
- Thickness of Each Pane: 1/4"
- Air Space Thickness: 1/2"

Glass shall be fully-tempered or laminated where required. Where required, provide safety glass complying with CPSC 16 CFR Part 1201.

Low-e coating shall be applied to No. 2 surface.

Minimum insulated glass assembly performance:

- Visible Light Transmittance (VLT): 70
- Solar Heat Gain Coefficient (SHGC): 0.38
- Light to Solar Gain (LSG) Ratio: 1.85

Sealing System: Manufacturer's Standard Dual Seal as follows:

- Desiccant: Molecular Sieve or Silica Gel or Blend of Both.
- Spacer Material: Manufacturer's Standard Metal with Anodized Finish.

Entrance Doors shall have 10" bottom rail complying with ANSI A117.1 and ADA.

Special Instructions

Depending on location of installation, a deeper system may be required to meet higher wind pressures or require a large missile impact rating. Architect of Record is responsible to specify a system that meets their local code and satisfies design intent.

ALUMINUM STOREFRONT

Interior and Exterior Aluminum Storef...

Manufacturer: EFCO

Style/Series: Storefront: Series 433 (T), Outside Glazed/Set; Doors:
D200 Narrow Stile

Sales Rep

Primary

Email: No.Email.436

Office Phone: 82214169

Attributes

Interior and Exterior Aluminum Storefront Framing, Doors, Door
Frames, Lights, and Fixed Windows

Type: Aluminum-Framed Storefront system, thermally-broken

DIMENSIONS

Depth: 4-1/2"

Dimension Explanation: Frame: 2" sightline x 4-1/2" depth; Refer to
Design Guideline Drawings for Door & Assembly Dimensions

MATERIAL/FINISH

Material Composition: Aluminum extrusions, complying with ASTM
B221, 6063-T6 alloy and temper. Glazing as specified below.

Color: Black

Finish: Anodized complying with AAMA 611, AA-M12C22A42/A44,
Class I, 0.018 mm; 10 year warranty.

PERFORMANCE

Accessibility Compliance : Comply with ANSI A117.1 and ADA.

Accessories: Entrance door hardware shall be supplied with doors
as follows: Continuous Hinges, 780-112 HD, Hager, Kynar finish,
color to match door; Closers, surface mounted type, LCN
4041-CUSH, cover to be color to match door; Weather Stripping (3
sides); Bottom Sweep; Handicapped Threshold, clear aluminum mill
finish. Provide construction cylinder and replace with final cylinder.
Final cylinders, panic devices, electric strikes and card readers as
specified in Door Hardware Section within Building Product Manual.
Refer to Storefront Door Pull specified in Door Hardware Section
within Building Product Manual.

Acoustical Performance: Enhanced OITC and STC Performance
available. Comply with the Owner's requirements according to
project conditions.

Best Practices: Recycled content of aluminum.

Operation: NA

Quality Standards: AAMA "Storefront and Entrance Manual". ANSI/
AAMA 101 "Voluntary Specifications for Aluminum, Vinyl (PVC) and
Wood Windows and Glass Doors"

IMAGE NOT
AVAILABLE

Structural Performance: Design for windload of 30 PSF with maximum deflection in both vertical and horizontal mullions not to exceed 1/175 of span. Water Penetration: ASTM E331 no water penetration at a test pressure of 6.24 PSF. Air Leakage per ASTM E283: Fixed window walls maximum of 0.06 CFM per sq. ft. of total exterior surface areas.

Thermal Performance: System U-factor shall comply with requirements of Authorities Having Jurisdiction.

MISCELLANEOUS

Warranty: 5 years (Structural). For Finish warranties, refer to Finish article above.

CUSTOM FIELDS

Quality Standards: NA

Product: NA

Notes

Where required, provide safety glass complying with CPSC 16 CFR Part 1201.

Insulating Glass complying with IGCC requirements and as follows:

- Total Thickness: 1"
- Thickness of Each Pane: 1/4"
- Air Space Thickness: 1/2"

Glass shall be fully-tempered or laminated where required. Where required, provide safety glass complying with CPSC 16 CFR Part 1201.

Low-e coating shall be applied to No. 2 surface.

Minimum insulated glass assembly performance:

- Visible Light Transmittance (VLT): 70
- Solar Heat Gain Coefficient (SHGC): 0.38
- Light to Solar Gain (LSG) Ratio: 1.85

Sealing System: Manufacturer's Standard Dual Seal as follows:

- Desiccant: Molecular Sieve or Silica Gel or Blend of Both.
- Spacer Material: Manufacturer's Standard Metal with Anodized Finish.

Entrance Doors shall have 10" bottom rail complying with ANSI A117.1 and ADA.

Special Instructions

Depending on location of installation, a deeper system may be required to meet higher wind pressures or require a large missile impact rating. Architect of Record is responsible to specify a system that meets their local code and satisfies design intent.

ALUMINUM STOREFRONT

Interior and Exterior Aluminum Storef...

Manufacturer: Oldcastle Building Envelope
Style/Series: Storefront: ThermaStack, Front Set; Doors: NS-12
(Narrow Stile) Entrance Doors

Sales Rep

Primary

Customer Service

Email: No.Email.311
Office Phone: (800) 899-8455

Attributes

Interior and Exterior Aluminum Storefront Framing, Doors, Door Frames, Lights, and Fixed Windows

Type: Aluminum-Framed Storefront system, thermally-broken

DIMENSIONS

Depth: 4-1/2"
Dimension Explanation: Frame: 2" sightline x 4-1/2" depth; Refer to Design Guideline Drawings for Door & Assembly Dimensions

MATERIAL/FINISH

Material Composition: Aluminum extrusions, complying with ASTM B221, 6063-T6 alloy and temper. Glazing as specified below.
Color: Black
Finish: Anodized complying with AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm; 10 year warranty.

PERFORMANCE

Accessibility Compliance : Comply with ANSI A117.1 and ADA.
Accessories: Entrance door hardware shall be supplied with doors as follows: Continuous Hinges, 780-112 HD, Hager, Kynar finish, color to match door; Closers, surface mounted type, LCN 4041-CUSH, cover to be color to match door; Weather Stripping (3 sides); Bottom Sweep; Handicapped Threshold, clear aluminum mill finish. Provide construction cylinder and replace with final cylinder. Final cylinders, panic devices, electric strikes and card readers as specified in Door Hardware Section within Building Product Manual. Refer to Storefront Door Pull specified in Door Hardware Section within Building Product Manual.
Acoustical Performance: Enhanced OITC and STC Performance available. Comply with the Owner's requirements according to project conditions.
Best Practices: Recycled content of aluminum.
Operation: NA
Quality Standards: AAMA "Storefront and Entrance Manual". 1. ANSI/AAMA 101 "Voluntary Specifications for Aluminum, Vinyl (PVC)

IMAGE NOT
AVAILABLE

and Wood Windows and Glass Doors"

Structural Performance: Design for windload of 30 PSF with maximum deflection in both vertical and horizontal mullions not to exceed 1/175 of span. Water Penetration: ASTM E331 no water penetration at a test pressure of 6.24 PSF. Air Leakage per ASTM E283: Fixed window walls maximum of 0.06 CFM per sq. ft. of total exterior surface areas.

Thermal Performance: System U-factor shall comply with requirements of Authorities Having Jurisdiction.

MISCELLANEOUS

Warranty: 5 years (Structural). For Finish warranties, refer to Finish article above.

CUSTOM FIELDS

Quality Standards: NA

Product: NA

Notes

Where required, provide safety glass complying with CPSC 16 CFR Part 1201.

Insulating Glass complying with IGCC requirements and as follows:

- Total Thickness: 1"
- Thickness of Each Pane: 1/4"
- Air Space Thickness: 1/2"

Glass shall be fully-tempered or laminated where required. Where required, provide safety glass complying with CPSC 16 CFR Part 1201.

Low-e coating shall be applied to No. 2 surface.

Minimum insulated glass assembly performance:

- Visible Light Transmittance (VLT): 70
- Solar Heat Gain Coefficient (SHGC): 0.38
- Light to Solar Gain (LSG) Ratio: 1.85

Sealing System: Manufacturer's Standard Dual Seal as follows:

- Desiccant: Molecular Sieve or Silica Gel or Blend of Both.
- Spacer Material: Manufacturer's Standard Metal with Anodized Finish

Entrance Doors shall have 10" bottom rail complying with ANSI A117.1 and ADA.

Special Instructions

Depending on location of installation, a deeper system may be required to meet higher wind pressures or require a large missile impact rating. Architect of Record is responsible to specify a system that meets their local code and satisfies design intent.

DH - Assembly, Door Hardware

ASSEMBLY, DOOR HARDWARE

Manufacturer: VARIOUS MANUFACTURERS
Style/Series: Stair Exterior (Door #27, 33)

**DOOR
HARDWARE**

9 NESTED ITEMS

| Code/Tag | Product Name | Quantity |
|------------|--------------------------------------|----------|
| DH-028-MK | APB91 Heavy Weight Hinge | 0.0 |
| DH-028-CLR | BB5200 Heavy Weight Hinge | 0.0 |
| DH-029-CLR | A2200EO36 Exit Device | 0.0 |
| DH-029-YA | 700 Series Architectural Exit Device | 0.0 |
| DH-034-YA | 2700 Series Door Closer | 0.0 |
| DH-034-CLR | N900PBF Door Closer | 0.0 |
| DH-091-PK | 315CN | 0.0 |
| DH-065-PK | 303 Pk Ms | 0.0 |
| DH-031-PK | 171A Saddle Threshold | 0.0 |

MacPRO Five Knuckle Heavy Weight Hinge

Manufacturer: Assa Abloy - McKinney Hardware
Style/Series: APB91 Heavy Weight Hinge

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

MacPRO Five Knuckle Heavy Weight Hinge

Item Type: McKinney MPB91

DIMENSIONS

Width: 4 1/2"

Height: 4"

MATERIAL / FINISH

Finish: US32D/630

Material Composition: Stainless

PERFORMANCE

Quality Standards: A5112 Grade 2 ANSI/BHMA 156.1, 156.7, 156.17

HINGE

Knuckle: 5



Cal-Royal BB5200 4.5" x 4.5" Heavy We...

Manufacturer: Cal-Royal Door Hardware
Style/Series: BB5200 Heavy Weight Hinge

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

Cal-Royal BB5200 4.5" x 4.5" Heavy Weight NRP Ball Bearing Hinge
(Non-Removable Pin)

Item Type: BB5200

DIMENSIONS

Width: 4.5"
Height: 4.5"

MATERIAL / FINISH

Finish: 652 Satin Chrome
Material Composition: 1040 steel or 304 series stainless steel

PERFORMANCE

Operation: For heavy weight doors – High frequency usage

HINGE

Knuckle: 5
Ball Bearings: 4

Notes

Manufacturer Page: <https://tinyurl.com/2473nfd>



A2200 & AF2200 Rim Type Panic and Fir...

Manufacturer: Cal-Royal Door Hardware

Style/Series: A2200EO36 Exit Device

Sales Rep

Primary

Nick Batrouney

Email: nickb@discoverParagon.com

Attributes

A2200 & AF2200 Rim Type Panic and Fire Exit Devices (ADA)

Item Type: A2200EO36 Exit Device

DIMENSIONS

Width: 30" to 36" door width

Length: 32"

Thickness: 1 3/4" thick standard optional 2 1/4" thick. 4 1/2" minimum stile width required for single or double door application using standard 239 strike and pull or lever trims

MATERIAL / FINISH

Finish: Aluminum (Alum)

Material Composition: Stainless Steel

PERFORMANCE

Accessibility Compliance : Americans with Disability Act (ADA)

Compliant, 5 lbs. opening force.

Best Practices: UL Listed for Panic and UL10C, UBC 7-2-1997 codes.

Fire/Smoke Rating: UL Listed for Fire Exit Hardware. 3 hours.

Quality Standards: ANSI A156.3, GRADE 1 heavy duty exit device in surface vertical rod and rim designs.

MISCELLANEOUS

Warranty: Lifetime



A2200 & AF2200 Rim Type Panic and Fire Exit Devices (ADA) A2260V & AF2260V Vertical Rod Panic and Fire Exit Devices (ADA) ANSI A156.3, Grade 1



Features & Construction

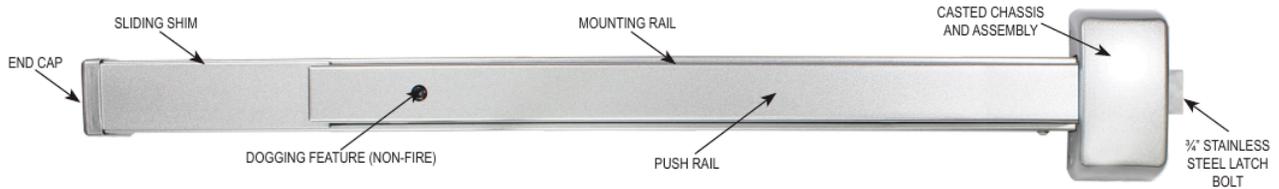
- ◆ **Retrofits Sargent 12-2828 & 12-2838 Series**
- ◆ Americans with Disability Act (ADA) compliant. 5 lbs opening force on ADA product only
- ◆ ANSI A156.3, Grade 1 heavy duty exit device in surface vertical rod and rim designs
- ◆ UL Listed for Panic and UL10C, UBC 7-2-1997 codes
- ◆ UL Listed for Fire Exit Hardware. 3 Hours
- ◆ Conforms & Meets ADA Regulations (ADA products only)
- ◆ (A) label rating in pairs of doors up to 8'0" x 8'0" swinging in same or opposite directions
- ◆ Uncompromising security and safety in single and double fire exit doors
- ◆ Chassis mounted unit construction
- ◆ Available in many different functions. Lever and escutcheon trims are grade 1 construction with clutch on rose trims. Escutcheon trims are rigid and covers 161 cut out.

Suggested Architect's Specifications

- ◆ All exit devices shall be of touch bar design with smooth operation and be operative over $\frac{2}{3}$ of the door's clear opening width
- ◆ All exit devices must be listed under "Panic Hardware" in the Accident Equipment List of Underwriters' Laboratories, Inc. Where labeled doors are used as exits, they must be equipped with labeled Fire Exit Hardware and UL10C, UBC 7-2-1997 codes
- ◆ All springs shall be of Stainless Steel throughout
- ◆ All exit devices shall be of chassis mounted unit construction.
- ◆ All exit devices shall be ANSI A156.3, Grade 1

A2200 & AF2200 ADA Series

GRADE 1 Rim Type Exit Device



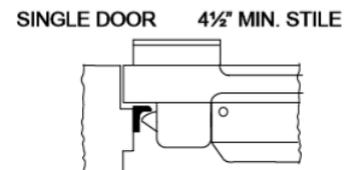
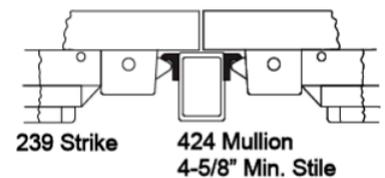
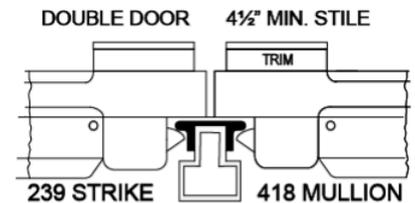
Specifications

| | |
|----------------------------------|--|
| For Doors..... | 1 3/4" thick standard optional 2 1/4" thick. 4 1/2" minimum stile width required for single or double door application using standard 239 strike and pull or lever trims |
| Chassis..... | Non-ferrous Alloy (Panic Grade), Steel (Fire Grade) |
| Cover..... | Non-ferrous Alloy. Covers stock hollow metal doors with 161 cutout |
| Mounting..... | Furnished standard with wood and machine screws. Available with thru-bolts on request. Thru-bolts are standard packaging on fire rated devices. |
| End Cap..... | Steel construction |
| Alarm..... | Available. See page 74 |
| Hand..... | Non handed, center hub. 2 3/4" backset |
| Latch Bolt..... | Stainless Steel 3/4" throw |
| Spring..... | Stainless Steel throughout |
| ANSI Standard..... | A156.3, Grade 1 |
| Rail Assembly..... | Heavy gauge steel, painted |
| Strike..... | 239 packed standard (See strike page) |
| Dogging Feature..... | Allen-type key furnished standard on non-fire labeled devices. Cylinder dogging available |
| Mullion..... | Available |
| UL and ULC Listed..... | A2200 Series for panic. AF2200 Series for fire exit hardware for all types of 4' x 8' single doors and 8' x 8' double doors for up to 3-hour fire labeled installations. Conforms to standards UL10C and UBC 7-2-1997 codes. |
| Finish..... | Aluminum (Alum), Dark Bronze Duranodic (Duro), Gold |
| Electronic Functions..... | (ELR) Electrical Latch Retraction and RX & LX Signal Switch available |

***Americans with Disability Act (ADA) compliant
5 lbs opening force on ADA Series only**

***Refer to the Price List for Stock Sizes and Finishes**

Minimum Stile Requirements 4" escutcheon trims & 4 1/2" for Thumbpiece and rose trims



DIMENSIONS

| | | | |
|--|-------------------------|---------------------|-----------------------|
| Touchbar height to finished floor | 41" (1041 mm) at center | | |
| Touchbar projection | | | |
| Neutral | 2 1/2" (64 mm) | | |
| Depressed | 1 3/4" (45 mm) | | |
| MODEL | ACTUAL LENGTH | MAX CUT DOWN | DOOR SIZE |
| A2200EO24 and AF2200EO24 | 20" | 2" | 22" to 24" door width |
| A2200EO32 and AF2200EO32 | 28" | 6" | 26" to 32" door width |
| A2200EO36 and AF2200EO36 | 32" | 6" | 30" to 36" door width |
| A2220EO48 and AF2220EO48 | 44" | 12" | 36" to 48" door width |

A2260V & AF2260V ADA Series

GRADE 1 Vertical Rod Type Exit Device



LIFETIME WARRANTY

BHMA CERTIFIED
Be Safe. Be Secure. Look for the Mark.

MEETS
The Buy American Act

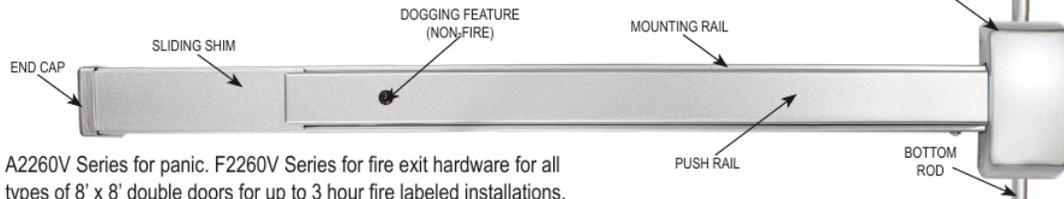


Specifications

- For Doors.....** 1 3/4" thick standard optional 2 1/4" thick. 3 3/4" minimum stile width required for single door application. 3 1/2" minimum stile width required for double door application. Lever trims available. 2 3/4" backset
- Top & Bottom Chassis.....** Non-ferrous Alloy (Panic Grade), Steel (Fire Grade)
- Cover.....** Non-ferrous plated material. Covers stock hollow metal doors with 161 cut out
- Mounting.....** Furnished standard with wood and machine screws. Thru-bolts are standard packaging on fire rated devices
- End Cap.....** Steel construction
- Alarm.....** Available. Prefix "NALRM" before MODEL #
- Hand.....** Handed. Easily field reversible. Specify at time of order LHR, RHR for convenience
- Latch Bolt & Spring.....** Stainless steel
- ANSI Standard.....** A156.3, Grade 1
- Rail Assembly.....** Heavy gauge steel, painted
- Strike.....** See strike page
- Dogging Feature.....** Allen-type key furnished standard on non-fire labeled devices

***Americans with Disability Act (ADA) compliant
5 lbs opening force on ADA Series only**

***Refer to the Price List for Stock Sizes and Finishes**



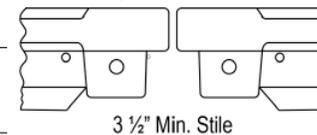
- UL and ULC Listed.....** A2260V Series for panic. F2260V Series for fire exit hardware for all types of 8' x 8' double doors for up to 3 hour fire labeled installations. Conforms to standards UL10C and UBC 7-2-1997 codes.
- Finish.....** Aluminum (Alum), Dark Bronze Duranodic (Duro), Gold
- Electronic Functions.....** (ELR) Electrical Latch Retraction and RX & LX Signal Switch available

DIMENSIONS

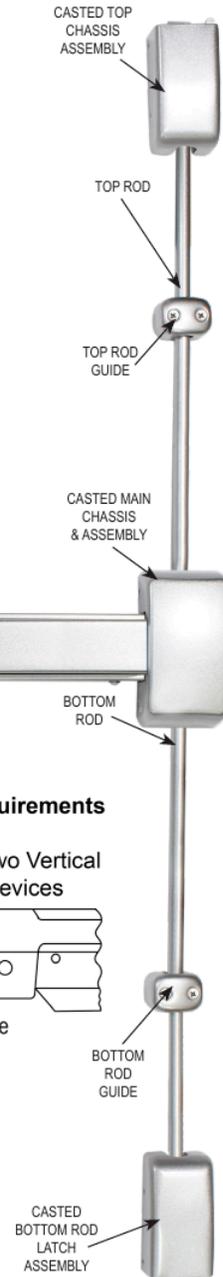
| | |
|---|--|
| Touchbar height to finished floor | 41" (1041 mm) at center |
| Touchbar projection | |
| Neutral | 2 1/2" (64 mm) |
| Depressed | 1 3/4" (45 mm) |
| Panic grade top & bottom latch case | 3 15/16" x 2 1/8" x 1 3/8" (100 mm x 54 mm x 35 mm) |
| Fire grade top latch case | 3 15/16" x 2 11/16" x 2 1/16" (100 mm x 68 mm x 52 mm) |
| Fire grade bottom latch case | 3 15/16" x 2 1/8" x 1 3/8" (100 mm x 54 mm x 42 mm) |
| Top and bottom rod length for 36" x 84" doors | Top rod 39 3/16" (995 mm), bottom rod 37 3/16" (945 mm) |
| Top and bottom rod length for 48" x 96" doors | Top rod 51 3/16" (1300 mm), bottom rod 37 3/16" (945 mm) |
| Vertical Rods | 1/2" (13 mm) Round tubing |

Minimum Stile Requirements

Double Door with Two Vertical Rod Type Exit Devices



| MODEL | ACTUAL LENGTH | MAX CUT DOWN | DOOR SIZE |
|--|---------------|--------------|-----------------------|
| A2210V2484, AF2210V2484 | 20" | 2" | 22" to 24" door width |
| A2260V3684, AF2260V3684, A2270V3284, AF2270V3284, A2290V3696, AF2290V3696, A2250V36120 | 32" | 6" | 30" to 36" door width |
| A2280V4896, AF2280V4896, A2240V48120 | 44" | 12" | 36" to 48" door width |



Manufacturer: Assa Abloy - Yale Locks & Hardware
Style/Series: 700 Series Architectural Exit Device

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

Item Type: 7100(F) Rim

DIMENSIONS

Door Opening Width: -36 for 30" - 36" (76cm - 91cm) doors
Stile Width: 4-1/2" (114mm)
Projection: 3-1/4" (83mm) active, 2-3/4" (70mm) dogged
Door Thickness: 1-3/4" (44mm) standard. Optional door thicknesses available to 4-1/2"; specify door thickness when ordering.

MATERIAL / FINISH

Finish: 630 Satin Stainless Steel
Material Composition: stainless steel

PERFORMANCE

Fire/Smoke Rating: FVSR/FVSR - Panic hardware; GXHX/GXHX7 - Fire exit hardware (F) (4' x 8' single, 8' x 8' pairs, 3 hr.)
Operation: 3/4" throw deadlocking stainless steel pullman latchbolt
Quality Standards: Certified A156.3 Type 1, Grade 1

MISCELLANEOUS

Lead Time: TBD



4400 Series Door Closer

Manufacturer: Assa Abloy - Yale Locks & Hardware
Style/Series: 2700 Series Door Closer

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

4400 Series Door Closer

DIMENSIONS

Door Thickness: 1 3/4"

MATERIAL / FINISH

Finish: 689

Material Composition: Cast aluminum body

PERFORMANCE

Best Practices: ANSI/BHMA A156.4, Grade 1

Accessibility Compliance : comply with requirements for the Americans with Disabilities Act ANSI/BHMA A117.1

Fire/Smoke Rating: UL / cUL listed for use on fire rated doors

Operation: Rack and pinion design

MISCELLANEOUS

Warranty: 30-year limited warranty

CUSTOM FIELDS

SURFACE CLOSER

Cover Material : Molded plastic cover

Opening Degree : All standard arm applications allow doors to swing 180°, conditions permitting



Manufacturer: CAL-ROYAL
Style/Series: N900PBF Door Closer

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

Item Type: N900PBF Door Closer

DIMENSIONS

Length: 11 3/4"

Height: 2"

Depth: 2 7/8"

MATERIAL / FINISH

Finish: US26D Satin Chrome

Material Composition: Cast Aluminum Body

PERFORMANCE

Accessibility Compliance : Meets ADA requirements - A117.1

Accessibility Code

Best Practices: ANSI 156.4 Grade 1

Fire/Smoke Rating: UL Listed

MISCELLANEOUS

Warranty: Limited Lifetime Warranty

CUSTOM FIELDS

SURFACE CLOSER

Cover Material : Full plastic cover standard

Mounting Type: Parallel Arm (Push Side), Regular (Pull Side), Top
Jamb (Push Side)

Opening Degree : up to 180 degrees



Bottom door sweep

Manufacturer: Assa Abloy - Rockwood Hardware
Style/Series: 315CN

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Secondary

Chris Hobbs
Email: chris.hobbs@assaabloy.com

Attributes

Bottom door sweep

Item Type: Door sweep

DIMENSIONS

Height: 1-11/16"

Thickness: 1/4" with 7/16" neoprene insert

MATERIAL / FINISH

Color: Clear Anodized Aluminum

Finish: CN

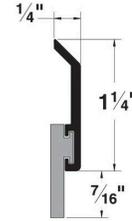
Material Composition: Aluminum alloy and temper retainer with neoprene insert

PERFORMANCE

Accessibility Compliance : ADA and ANSI A117.1

Fire/Smoke Rating: UL10C Positive Pressure Fire Tests of Door Assemblies

Quality Standards: ANSI/BHMA A156.22 American National Standard for Gasketing



Architectural Door Accessories

ASSA ABLOY
Opening Solutions

Pemko Door Bottoms: Door Bottom Sweeps

315_N

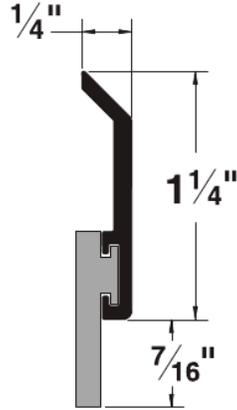


AVAILABLE FINISHES: B, C, D, G, PW, SN

WIDTH: 1/4" (6.4 mm)

PROFILE HEIGHT: 1-1/4" (31.8 mm)

TOTAL HEIGHT WITH INSERT: 1-11/16" (42.9 mm)



B (Mill Finish Extruded Bronze [Brass])
C (Clear Anodized Aluminum)
D (Dark Bronze Anodized Aluminum)
G (Gold Anodized Aluminum)
PW (Painted White Aluminum)
SN (Satin Nickel Anodized Aluminum)

| |
|---------------|
| TITLE: |
| PREPARED FOR: |
| PREPARED BY: |
| DATE: |
| COMMENTS: |

Standard Perimeter Gasketing

Manufacturer: Assa Abloy - Rockwood Hardware
Style/Series: 303 Pk Ms

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

Standard Perimeter Gasketing

Item Type: 303APK 36" x 84"

DIMENSIONS

Width: 7/8" (22.2 mm)

Length: Up to 120"

Height: 1/4" (6.4 mm)

Weight: Estimated per foot: 0.07 lbs

MATERIAL / FINISH

Finish: A - Mill Finish Aluminum Aluminum with Gray PemkoPrene insert

Material Composition: 6063-T6 Aluminum Alloy and Temper Retainer

PERFORMANCE

Best Practices: ANSI R3G164 ANSI/BHMA A156.22 - Door Gasketing and Edge Seal Systems

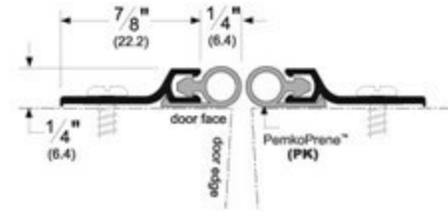
Fire/Smoke Rating: Tested to UL 1784 and meets the requirements of NFPA 105-2013 for smoke leakage in an opening; allows no more than 3.0 cfm per square foot at 0.10" water column (about 75 Pa).

Tested to UL10B Standard Fire Tests and UL10C Positive Pressure Fire Tests of Door Assemblies

MISCELLANEOUS

Lead Time: 4 working days (or less)

Warranty: 5 Years from purchase date



Architectural Door Accessories

ASSA ABLOY

Pemko Product Reference Tech-Spec

The global leader in
door opening solutions

303_PK_(PG)

Perimeter Gasketing

Example: 303 | D | PK | 3684
Profile# Finish Silicone Length

TYPE: Standard Perimeter Gasketing

MATERIAL: 6063-T6 Aluminum Alloy and Temper Retainer

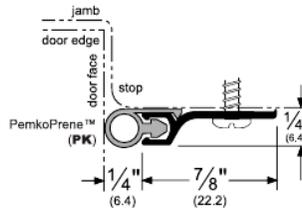
FINISH: A (Mill Finish), D (Dark Anodized), BDG (Bright Dip Gold), C (Clear Anodized)
PW (Painted White), SN (Satin Nickel Anodized)

LENGTHS: Up to 120"

WIDTH: 7/8" (22.2 mm)

HEIGHT: 1/4" (6.4 mm)

WEIGHT: Estimated per foot: 0.07 lbs



Product Test Ratings:



See Product Testing
section for more
information.

ANSI NUMBER: R3G164

LEAD TIME: 4 working days (or less)

AVAILABLE: Shipped from Pemko's Memphis, Ventura, Vancouver and Toronto locations

WARRANTY: 5 Years from purchase date

CROSS REFERENCE: N/A

INSTRUCTIONS, CAD DRAWINGS, PROFILE DRAWINGS and CUT SHEET

Available upon request and on website

PRODUCT TESTING:

- **Air Infiltration Tested** – Tested to ASTM E-283-04 (2012) for low air leakage allowance; allows no more than 0.3 cfm per square foot at 1.57 psf.
- **Smoke Tested** – Tested to UL 1784 and meets the requirements of NFPA 105-2013 for smoke leakage in an opening; allows no more than 3.0 cfm per square foot at 0.10" water column (about 75 Pa).
- **Fire Rated** – Tested to UL10B Standard Fire Tests and UL10C Positive Pressure Fire Tests of Door Assemblies
- **BHMA Certified** – Tested for performance with regards to the requirements in:
 - ANSI/BHMA A156.22 – Door Gasketing and Edge Seal Systems

MATERIAL SAFETY / FIRE HAZARDS

Per OSHA Regulations (Standards – 29 CFR) this Pemko item is considered an “article” as described in section 1910.1200 paragraph (c), meaning that it is a manufactured item other than a fluid and is not a hazard. To help our customers we are providing additional information in this section to cover relevant topics found on Safety Data Sheets (SDS) but not found elsewhere in this document.

FIRE HAZARD:

Aluminum alloy is a non-combustible material. Solid aluminum does not present a fire hazard.

FIRST AID MEASURES

Under normal conditions this item presents no small parts and so this item cannot be inhaled or swallowed and has no adverse reaction when coming in contact with skin. Observe good industrial hygiene after installation.

Note to physician: treat symptomatically and supportively

FIREFIGHTING MEASURES

As in any fire, prevent human exposure to fire, smoke, fumes, or products of combustion. Evacuate non-essential personnel from the fire area. Firefighters should wear face mask with self-contained breathing apparatus (SCBA) and impervious protective clothing. In case of aluminum fire, use class D dry powder to extinguish. DO NOT USE water or halogenated extinguishing media.

- Hazardous combustion products: none.

SPILL PROCEDURES

Sweep up any off-cuts from product and store in a suitable container for disposal

HANDLING, STORAGE, AND DISPOSAL

There are no specific handling instructions. Always store at room temperature and keep away from heat sources. When disposing, if possible, recycle the item and its packaging. Otherwise disposal should be in accordance with local, state, or federal legislation. Bury in an authorized landfill site or incinerate under approved controlled conditions.

EFFECTS OF EXPOSURE

There are no effects under normal conditions of use. Observe good industrial hygiene.

TOXICITY

There is no toxicity hazard under normal conditions of use

HEALTH HAZARD

This product may contain hazardous ingredients; harmful effects are unlikely under normal conditions.

ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience

ASSA ABLOY

CARE AND MAINTENANCE

CLEANING

Pemko's aluminum products and solid gasket products can be cleaned with a mild soap with warm water. A clean non-abrasive cloth should be used to clean the surface of these products. For removing grease, sealant, or other minimal adhesives a mild solvent such as mineral spirits may be used; then clean with mild soap mixed with warm water. To dry, either allow to air dry or wipe dry with a chamois, squeegee, or lint-free cloth.

For sponge gasket and weatherstrip products, wipe with a damp cloth. Do not use mineral spirits or other chemical as this may cause the plastic to "melt" or deteriorate. To dry, either allow to air dry or wipe dry with a chamois, squeegee, or lint-free cloth.

The use of strong solvents or cleaner concentrations may cause damage to the finish surface and isn't recommended.

MAINTENANCE

Pemko products are generally low-maintenance and require nothing more than general cleaning. Should anything outside of "general cleaning" arise, please consult Pemko Customer Service.

If you have any questions, or if you have a situation outside this scope, please contact Pemko Customer Service.

www.pemko.com

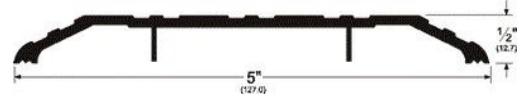
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|-----------------|-----------------|------------------|-----------------|
| MEMPHIS, TN USA | VENTURA, CA USA | VANCOUVER, BC CA | TORONTO, ON CA |
| P: 800 824-3018 | P: 800 283-9988 | P: 877 535-7888 | P: 877 535-7888 |
| F: 800 243-3656 | F: 800 283-4050 | F: 877 535-7444 | F: 877 535-7444 |

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303_PK (PG)_TS
Revised 06.09.17
Page 3 of 3

Saddle Threshold

Manufacturer: ASSA ABLOY/Pemko
Style/Series: 171A Saddle Threshold



Sales Rep

Primary

Chris Hobbs
Email: chris.hobbs@assaabloy.com

Attributes

Saddle Threshold

Type: Threshold

MATERIAL/FINISH

Finish: 171A: Mill Finish Aluminum Aluminum

PERFORMANCE

Quality Standards: Barrier-Free; BHMA Certified; Fire Rated - UL10C
- Positive Pressure; UL 4L10

MISCELLANEOUS

Lead Time: 3-5 business days
Warranty: Ten year limited warranty

CUSTOM FIELDS

Notes

Special Instructions

Refer to door hardware schedule for hardware locations

Architectural Door Accessories

ASSA ABLOY

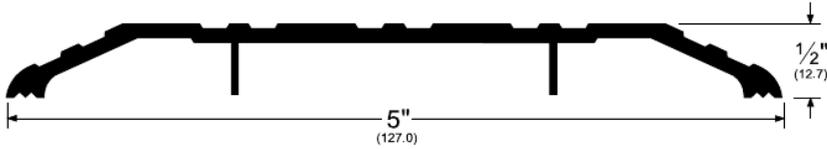
Pemko Commercial Thresholds: Saddle Thresholds

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door opening solutions

171_



AVAILABLE FINISHES: A, B, BDG, D, G, SN
WIDTH: 5" (127.0 mm)
HEIGHT: 1/2" (12.7 mm)



A (Mill Finish Aluminum)
B (Mill Finish Extruded Bronze [Brass])
BDG (Bright Dip Gold Anodized)
D (Dark Bronze Anodized)
G (Gold Anodized)
SN (Satin Nickel Anodized)

| |
|---------------|
| TITLE: |
| PREPARED FOR: |
| PREPARED BY: |
| DATE: |
| COMMENTS: |

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171_CUT Rev 1 - 02.16.17

ASSEMBLY, DOOR HARDWARE

Manufacturer: VARIOUS MANUFACTURERS
Style/Series: Corridor Exit/Rear Exit (Door #15, 25, 30)

**DOOR
HARDWARE**

1 NESTED ITEMS

| Code/Tag | Product Name | Quantity |
|-----------|----------------------------|----------|
| DH-061-KB | Card Lock Exit Device Trim | 0.0 |

Heavy duty electronic lockset (mortis...

Manufacturer: Kaba

Style/Series: Card Lock Exit Device Trim

Sales Rep

Primary

Nick Batrouney

Email: nickb@discoverParagon.com

Attributes

Heavy duty electronic lockset (mortise or cylindrical) with clutch mechanism and either built in magnetic stripe (MT Lock Model) or contactless card reader (MT RFID Lock Model) available in the Saflok MT Lock Series product line.

Item Type: Card Lock Exit Device Trim

DIMENSIONS

Dimension Explanation: See cut sheet

MATERIAL / FINISH

Finish: 626

PERFORMANCE

Accessibility Compliance : Meets ADA

Fire/Smoke Rating: UL certified GVVV.R12071 "Accessories for Single-point Locks and Latches and Fire Exit Hardware." UL 10B and UL 10C., U.L. Listing: GYQS.R11247, UL 10B and UL 10C., Uniform Building Code Standard

Quality Standards: ANSI/BHMA A156.25-2007

MISCELLANEOUS

Warranty: Standard Warranty: 2 years

MISCELLANEOUS

Handle Finish : 626

RFID Finish: Black Finish

Keycards Accepted: Magstripe, smartcard or Mifare Classic



Saflok Exit Device Operators



Overview

Perimeter access locks allow access control of exit doors equipped with panic devices. They offer the same design and security features as the guestroom locks ensuring hotel property design remains uniform.

Models

- MT RFID: contactless, operates with RFID card reader
- MT Magcard: operates with mag stripe card reader

Specifications

- Minimum door style required 5" (127 mm)
- Supplied with gasket kit for exterior doors
- All fitted with adaptor plate

System Compatibility

- System 6000 and Deskline

Compatibility with select exit devices

- Mortise operators
- Rim operators
- Vertical rod surface mount

Consult a Kaba sales rep for a complete list of compatible exit device models

Security Features

- Vandalism and attack resistant
- Emergency access: emergency keycard
- Audit capabilities

Mechanical Features

| | |
|-----------------------------|---|
| Description | Heavy duty electronic lockset (mortise or cylindrical) with clutch mechanism and either built in magnetic stripe (MT Lock Model) or contactless card reader (MT RFID Lock Model) available in the Saflok MT Lock Series product line. |
| Handing | Left or right factory handed lockset. |
| Lever | ADA compliant, outside lever free to rotate upward and downward in locked mode Arc / Troy / Gala / Continental / Vintage / Apogee / Elevon |
| Dimensions | Door thickness from 1 1/8" to 3" [35mm to 76.2 mm] |
| Shipping Weight | MT Series 8 lbs (3.6 kg) |
| Housing Construction | Escutcheon: stainless steel or brass / levers: brass, zinc or stainless steel |
| Standard Finishes | Bright chrome, bright brass, satin chrome, satin brass, dark mahogany Stainless finishes are recommended near ocean front or for exterior applications |

Batteries

| | |
|--|---|
| Alkaline - Four AA battery pack | Battery life is up to 2 years Low battery indicator: alerts staff that batteries need to be changed soon |
|--|---|

Lock Operation

| | |
|--------------------------------|--|
| Date/ Time Stamp | Real-time: date and hours/minutes |
| Interrogation | Obtain key usage reports from the lock by using a 4K RFID keycard [MT RFID] or a handheld unit at the door (System 6000 and Desklinc) |
| Pre-registered Keycards | Keys can be made up to ten days in advance without cancelling current or arriving guests |
| Keycard Expiration | Confirmable expiration dates; can be automatically set for check out date or manually applied when making key during check in process. |
| Passage Mode | Set by authorized keycard or Messenger system. Can also be configured to perform an automated / pre-defined passage mode time. |
| Lockout Mode | Set by authorized keycard or Messenger system |
| Keycards Accepted | Magstripe, smartcard or Mifare Classic (4 byte NUID) keycards for MT RFID |
| Feedback | Light indicators in reader |
| Diagnostics | Light indicators and handheld display |
| Audit Trail | Up to 4,000 events |
| Disability Feature | RCU readers interface with automatic power operated doors for special openings |
| Privacy override | Emergency keycards |

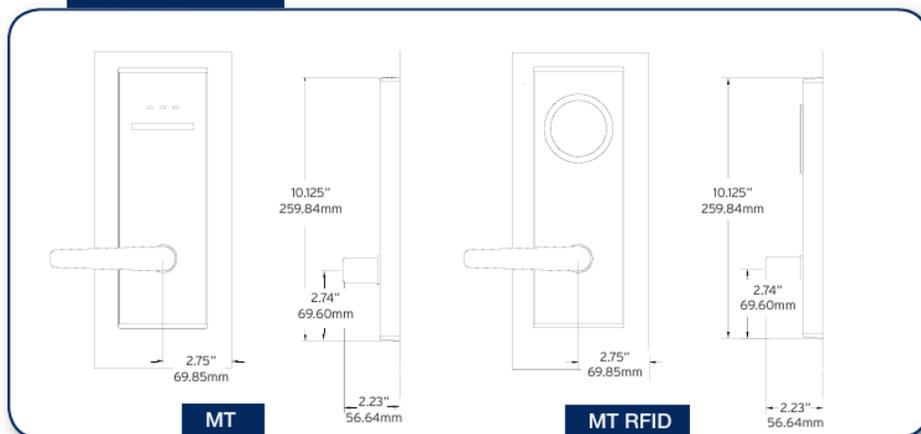
Certifications and Testing

| | |
|---|--|
| Accessibility Standard | ADA compliant levers (Code of Federal Regulations 28 CFR Part 36 - 1994 "ADA Standards for Accessible Design") |
| BHMA/ ANSI | Certified to be compliant with Grade One performance tests for "ANSI/BHMA A156.13-2005 Standard for Mortise Locks and Latches," and "ANSI/BHMA A156.25-2007 Standard for Electrified Locking Devices." (Only locks tested and approved by non-biased third-party test lab are allowed in the "BHMA Certified Products Directory" found at www.buildershardware.com) |
| Fire Rating | Listed for pre-prepared manufactured doors and certified for retrofitting on existing doors by Underwriters Laboratories for use on fire doors having up to a three-hour rating. a. U.L. Certification: GWVW.R12071 "Accessories for Single-point Locks and Latches and Fire Exit Hardware." Evaluated in accordance with UL 10B and UL 10C. b. U.L. Listing: GYQS.R11247 "Electrically Controlled Single-point Locks and Latches." Evaluated in accordance with UL 10B and UL 10C. c. Also classified in accordance with Uniform Building Code Standard 7-2, "Fire Test of Door Assemblies" (1997) |
| Electronics | FCC Part 15 Class A and CE directive 89/336/EEC compliant |
| Environmental Operating Conditions | Indoor side: 32°F to 151°F (0°C to 66°C) Outdoor side: -31°F to 151°F (-35°C to 66°C) 0% to 85% non-condensing humidity at 86°F (30°C) |

Warranty

| | |
|----------------------------------|---|
| Standard Factory Warranty | Two years |
| Extended Warranty | Saflok SAFGARD warranty plans available |

Dimensions



Exit Device Operators

dormakaba offers a series of exit device hardware that is compatible with mechanical and electrical applications. This hardware is manufactured for the most demanding access/egress applications.

Rim Exit Device

The Dorma 9300 series is a single-point rim latch with a modern touch bar design.

Vertical Rod Exit Device

The Dorma 9400 series is a surface-mounted vertical rod exit device with a modern touch bar design.



| | |
|-------------------|---|
| Hand: | Non-handed |
| Stock | 36" door width (standard); 48" door width available at an upcharge |
| Door Types | Wood, hollow metal, fiberglass, or aluminum |
| Door requirements | Fits standard 1 3/4" - 2 1/4" doors |
| Mounting height | 40" above finished floor |
| Stile width | 4 5/8" with standard 99 strike 4 1/8" with optional 98 strike |
| Latch bolts | Stainless steel dead-locking; Pullman-type top latch |
| Finishes* | 605 Bright brass; 606 Satin brass; 611 Bright bronze; 612 Satin bronze; 613 Oxidized satin; 619 Satin Nickel; 693 Black; 625 Bright chrome; 626 Satin chrome; 629 Bright Stainless; 630 Satin stainless |

* Check availability of finishes for devices and corresponding locks before ordering. Other powder-coated finish options available. Other panic bar options available, for details, contact your dormakaba representative.

Panic Bar Locks

dormakaba electronic locks are compatible with most exit control devices. They combine the best features – inside and out:

- Bluetooth Low Energy (BLE) capable lock using the dormakaba mobile access solutions
- Easy-to-install mechanical interface eliminates the need for an electrician
- No wires running through the door, frame, or hinges
- Self-contained battery allows up to 60,000 entries or up to 3 years for Confidant RFID
- ANSI Grade 1 rating
- Auditable entries
- Auto latch/unlatch feature makes manual dogging unnecessary
- UL fire rated (optional)



Saffire LX



Confidant RFID



790/RT



RT Plus



MT RFID

Pushbutton Lock

The E-Plex 2000 is used in access points such as offices and store-rooms. It combines the strength, simplicity and reliability of our industry leading pushbutton locks with the enhanced features and convenience of electronic access control. PIN access eliminates the cost and problems of issuing and managing keys or keycards.

Features

- 100 access codes – including user and service levels
- Cylindrical latch
- Simple to install and maintain
- Easy to manage – no software required
- Key override available



Remote Control Readers

DH-060

dormakaba's line of remote control readers controls special access points such as elevators, parking entrances, or any door with an electric strike or electronic lock.

Features

- Work with electrified locking devices
- Environmentally sealed contactless
- smart card reader protects against climate extremes, which is an especially vital feature for common access readers placed in external building and exit device applications
- Bluetooth Low Energy (BLE) capable reader using the dormakaba mobile access solutions
- Contactless smart card reader leverages Mifare Classic or Mifare Plus credentials
- Auditable entries/attempts
- Restricts access to guest keys after check-out date



SR Series



Quantum IV



Quantum RCU/ECU

ASSEMBLY, DOOR HARDWARE

Manufacturer: VARIOUS MANUFACTURERS
Style/Series: Exterior Vestibule Entry (Door #10)

**DOOR
HARDWARE**

ASSEMBLY, DOOR HARDWARE

Manufacturer: VARIOUS MANUFACTURERS
Style/Series: Corridor/Rear Exit (Door #15, 25, 30)

**DOOR
HARDWARE**

9 NESTED ITEMS

| Code/Tag | Product Name | Quantity |
|------------|---|----------|
| DH-028-CLR | BB5200 Heavy Weight Hinge | 0.0 |
| DH-028-MK | APB91 Heavy Weight Hinge | 0.0 |
| DH-034-CLR | N900PBF Door Closer | 0.0 |
| DH-034-YA | 2700 Series Door Closer | 0.0 |
| DH-070-YA | 7110F-36-7 x EO | 0.0 |
| DH-082-YA | 626f Exit Device Escutcheon Lever Trim | 0.0 |
| DH-085-PK | 303 Pk Ms | 0.0 |
| DH-090-PK | 171A | 0.0 |
| DH-091-PK | 315CN | 0.0 |

Cal-Royal BB5200 4.5" x 4.5" Heavy We...

Manufacturer: Cal-Royal Door Hardware
Style/Series: BB5200 Heavy Weight Hinge

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

Cal-Royal BB5200 4.5" x 4.5" Heavy Weight NRP Ball Bearing Hinge
(Non-Removable Pin)

Item Type: BB5200

DIMENSIONS

Width: 4.5"
Height: 4.5"

MATERIAL / FINISH

Finish: 652 Satin Chrome
Material Composition: 1040 steel or 304 series stainless steel

PERFORMANCE

Operation: For heavy weight doors – High frequency usage

HINGE

Knuckle: 5
Ball Bearings: 4

Notes

Manufacturer Page: <https://tinyurl.com/2473nfd>



MacPRO Five Knuckle Heavy Weight Hinge

Manufacturer: Assa Abloy - McKinney Hardware
Style/Series: APB91 Heavy Weight Hinge

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

MacPRO Five Knuckle Heavy Weight Hinge

Item Type: McKinney MPB91

DIMENSIONS

Width: 4 1/2"

Height: 4"

MATERIAL / FINISH

Finish: US32D/630

Material Composition: Stainless

PERFORMANCE

Quality Standards: A5112 Grade 2 ANSI/BHMA 156.1, 156.7, 156.17

HINGE

Knuckle: 5



Manufacturer: CAL-ROYAL
Style/Series: N900PBF Door Closer

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

Item Type: N900PBF Door Closer

DIMENSIONS

Length: 11 3/4"

Height: 2"

Depth: 2 7/8"

MATERIAL / FINISH

Finish: US26D Satin Chrome

Material Composition: Cast Aluminum Body

PERFORMANCE

Accessibility Compliance : Meets ADA requirements - A117.1

Accessibility Code

Best Practices: ANSI 156.4 Grade 1

Fire/Smoke Rating: UL Listed

MISCELLANEOUS

Warranty: Limited Lifetime Warranty

CUSTOM FIELDS

SURFACE CLOSER

Cover Material : Full plastic cover standard

Mounting Type: Parallel Arm (Push Side), Regular (Pull Side), Top
Jamb (Push Side)

Opening Degree : up to 180 degrees



4400 Series Door Closer

Manufacturer: Assa Abloy - Yale Locks & Hardware
Style/Series: 2700 Series Door Closer

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

4400 Series Door Closer

DIMENSIONS

Door Thickness: 1 3/4"

MATERIAL / FINISH

Finish: 689

Material Composition: Cast aluminum body

PERFORMANCE

Best Practices: ANSI/BHMA A156.4, Grade 1

Accessibility Compliance : comply with requirements for the Americans with Disabilities Act ANSI/BHMA A117.1

Fire/Smoke Rating: UL / cUL listed for use on fire rated doors

Operation: Rack and pinion design

MISCELLANEOUS

Warranty: 30-year limited warranty

CUSTOM FIELDS

SURFACE CLOSER

Cover Material : Molded plastic cover

Opening Degree : All standard arm applications allow doors to swing 180°, conditions permitting



The 7110(F) is a surface vertical rod...

Manufacturer: Assa Abloy - Yale Locks & Hardware
Style/Series: 7110F-36-7 x EO

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

The 7110(F) is a surface vertical rod exit device to be used on wide stile or flush doors up to 8' (fire) and 10' (panic) where two-point latching is desired.

Item Type: 7110F-36-7 x EO

DIMENSIONS

Width: 36 for 30" - 36" (76cm - 91cm) doors
Door Thickness: 1-3/4" (44mm) standard. Optional door thicknesses available to 4-1/2"; specify door thickness when ordering.
Projection: 3-1/4" (83mm) active, 2-3/4" (70mm) dogged
Min Stile Width: 4-1/2" (114mm)

MATERIAL / FINISH

Finish: 630

PERFORMANCE

Best Practices: Certified A156.3 Type 2, Grade 1

MISCELLANEOUS

Warranty: 5-year limited





7000 Series Architectural Exit Device



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7000 Series Exit Devices

Yale® 7000 Series Exit Devices deliver an unparalleled combination of durability, innovation and aesthetics. With ANSI/BHMA Grade 1 certification and a full range of mechanical and electromechanical functions and accessories, the 7000 Series can be easily integrated into existing security or fire alarm systems to ensure the safety of every opening. The simple, clean lines and variety of available finishes suit the modern decor of any commercial building.

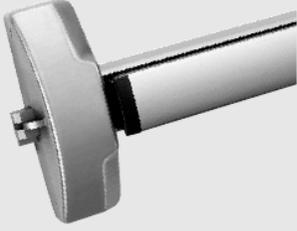
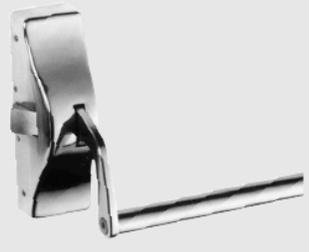
When the beauty of your facility matters almost as much as life safety, Yale Works for YouSM.

Introduction



Yale® Commercial Solutions offers innovative and reliable products to solve the challenges of commercial, retail, hospitality, assisted living, mixed-use, and multi-family properties. With over 150 years of door hardware experience, Yale's expertise extends beyond products to people - and provides the service and support you expect.

Featuring durable products to meet all your facilities' requirements - and the quality you expect from a leader in the hardware industry. Yale works for youSM.

| Yale Exit Devices | | | |
|--|---|---|--|
| 6000 Series | 2100 Series | 1800 Series | 1500 Series |
|  |  |  |  |
| <ul style="list-style-type: none"> • Ideal for facilities that require modern form and full functionality to meet their life safety needs • Wide & Narrow Stile Applications • Rim, Squarebolt, CVR, SVR & Mortise • Mechanical & Electro-Mechanical Functions • Aluminum rail assembly with Architectural Metals • Solid Cast Flush End Cap • ANSI/BHMA Certified Grade 1 • UL Rated for Panic & Fire • 10 Year Warranty | <ul style="list-style-type: none"> • Ideal for commercial applications and budget conscious end users • Narrow & Wide Stile Applications • Rim, Squarebolt, CVR & SVR • Mechanical Functions • ANSI/BHMA Grade 1 Certified • UL Rated for Panic & Fire • Architectural & Painted Finishes • 3 Year Warranty | <ul style="list-style-type: none"> • Ideal for back of the house where function and code compliance are the requirement • Wide Stile Applications • Rim & SVR • Mechanical Functions • ANSI/BHMA Certified Grade 1 • UL Rated for Panic & Fire • Powder-coat Painted Finishes • 1 Year Warranty | <ul style="list-style-type: none"> • Ideal for renovation projects where historical preservation is the desired look • Wide Stile Applications • Rim, CVR, SVR & Mortise • ANSI/BHMA Certified Grade 1 • UL Rated for Panic & Fire • Architectural & Painted Finishes • 1 Year Warranty |



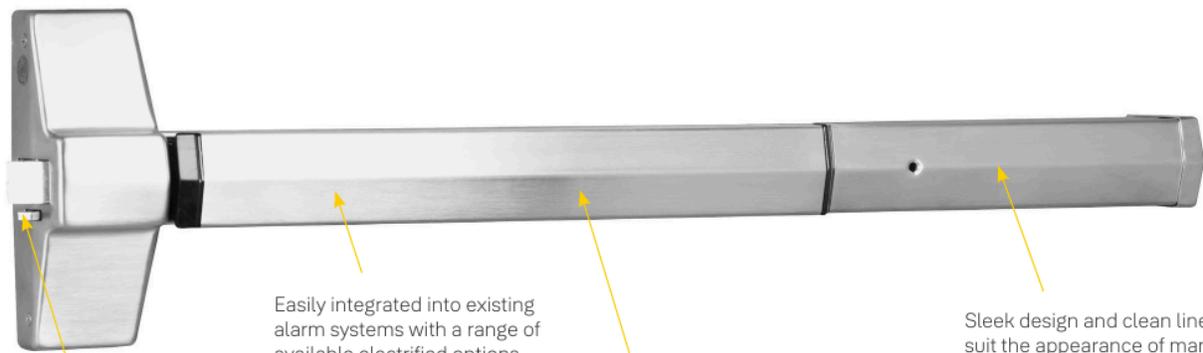
Benefits & Features

Benefits

- **Innovative:** Featuring patented security options including SquareBolt® latchbolt and delayed egress function
- **Durable:** Heavy-duty steel components are ANSI/BHMA Grade 1 certified for the ultimate in strength and security
- **Flexibility:** Various options available to customize this exit device to suit any opening
- **Clean, modern look:** Sleek design with a variety of attractive finish options to suit any decor

Features

- High quality steel chassis and heavy-duty components
- Full range of mechanical and electromechanical options to suit any life safety application and pair with existing security systems
- ANSI/BHMA Grade 1 certified
- UL/cUL listed for panic and fire doors
- Windstorm certified (refer to local codes)  Hurricane
- Five year mechanical warranty, one year trim warranty, two year warranty on electrical options and components



Available with various configurations including rim, SquareBolt®, surface/concealed vertical rod, to suit any opening

Easily integrated into existing alarm systems with a range of available electrified options

Constructed with high quality steel and heavy-duty components for durability

Sleek design and clean lines suit the appearance of many modern commercial buildings

Now Available with Motorized Electric Latch Retraction!

The Motorized Electric Latch Retraction (MELR) feature provides remote-controlled latch retraction that delivers quiet, smooth operation for convenient, hassle-free egress. Easily installed in new applications and available as retrofit rail kit assemblies for field updates, the MELR features maintenance-free design with few moving parts using 86% less power consumption during retraction than solenoid devices. Plus, MELR is powered by a standard power supply, simplifying installation and increasing system design flexibility. See page 32 for more details.



Finishes



| ANSI/BHMA Code Finish Description | | | | | |
|--|--|--|---|--|--|
| 605 Bright Brass, Clear Coated | 611 Bright Bronze, Clear Coated | 612 Satin Bronze, Clear Coated | 613E Dark Oxidized Satin Bronze - equivalent | 619* Satin Nickel Plated, Clear Coated | 625 Bright Chrome Plated (540F trim only) |
|  |  |  |  |  |  |
| 626* Satin Chrome Plated (Trim only) | 629 Bright Stainless Steel | 630* Satin Stainless Steel | 693 Black Painted | BSP Black Suede Powder Coat | WSP White Suede Powder Coat |
|  |  |  |  |  |  |

613, 626 and 722 finishes available as Special Product Requests only. Please contact Customer Service for more information.

*Finish available with MicroShield® antimicrobial coating, additional finishes by special application. Consult factory for availability.

MicroShield coating may vary finish color from architectural standards. MicroShield is not intended as a substitute for traditional infection control programs such as hand hygiene or use of disinfectants. Coated products must still be cleaned to ensure the surfaces will be free of destructive microbes. Yale makes no representations or warranties, express or implied, as to the efficacy of MicroShield.

Finishes For Touchbar Covers Only

| ANSI/BHMA Code | Finish Description |
|-----------------|--------------------------------|
| BN ³ | Semi-gloss black fused polymer |
| LUM | Lumi-lite Photoluminescence |
| SS | Stainless Steel |

Lumi-Lite

Lumi-lite uses photoluminescence technology to provide visibility of exit doors in low-light, no light or smoky conditions. Lumi-lite can be ordered with your 7000 Series Exit Device or easily retrofitted to existing devices. See Lumi-lite Touchpad Cover on page 57 for more information.



How To Order



From this outline select the Model Number for the Yale® 7000 Exit Device Series you require.

| 7 | X | X | X | Mechanical/Electrical | Size | Design | Trim | Finish | Other Info. |
|---|---|---|--|--|------|------------------------------------|--------------------------|-------------------|--|
| | Second Digit: "1" - Standard device, 4-1/2" (114mm) or wider door stile. "2" - Narrow stile door or narrow escutcheon trim (500F, 510F Series) | Third Digit: "0" - Rim Device, Pullman Latch "1" - SVR Device up to 8' "2" - CVR Device, Metal Doors up to 8' "3" - Mortise Device "5" - SquareBolt®, Rim Security "6" - CVR Device over 8', wood door or LBR "7" - SVR Device over 8' or LBR | Fourth Digit: "0" - Standard "5" - Cylinder Dogging (Not with suffix "F") | Mechanical Feature  "F" - Fire Exit Device "M" - Narrow escutcheon trim in 4-1/2" (114mm) or wider door stile "LBR" - Less Bottom Rod ² "L5" - Mortise Device, Entry by Key with/without Rigid Lever ¹ "L8" - Mortise Device, Entry by Lever "T5" - Mortise Device with Thumbpiece Trim "T8" - Mortise Device, Active Thumbpiece Trim "2" - Double Cylinder Device ³ "WS" - Windstorm Certified Products ^{5, 6, 7} Electrical Feature "-A" - Alarm Kit "-B" - Bar Monitor or Signaling "-D" - Delayed Egress "-G" - Electric Dogging "-O" - Outside Trim Monitor or Signaling "-MELR" - Motorized Electric Latch Retraction "-S" - Latchbolt Status Monitor or Signaling "-Safe" - Mortise Device Trim Control (lever only) "-Secure" - Mortise Device Trim Control (lever only) | | Trim Design (Lever only) | Trim Model Number | See page 4 | Other Information: Door Hand - RHR or LHR Door Thickness - Over 1-3/4" (45mm) Fastener Options - TORX® Security Screws SNB (wood, composite, or unreinforced metal doors) Specialty Cylinders & Components Lumi-lite: LUM |

Ordering Examples

Exit Device Only

7150D-36 x 619 x RHR x SNB

Exit Device with Trim and Cylinder*

7170F90-9-48 x AU626F x 605 x LHR x 1109 GA 0-bit

Trim Only

MO656F x 630 x RHR x LC

Double Cylinder Exit Device with Trim

7150F-2-36 x AU626F x 630

*Yale® exit devices and trims are processed separately. To aid in order processing, the device, trim and cylinder should be detailed as separate line items. These items can be ordered on one line item as shown, but they will be entered to the factory and acknowledged separately.

It is recommended that exit devices and trim for the same opening be ordered together. Standard product is for 1-3/4" (44mm) reinforced metal doors. Accessories detached from the device and trim should be specified separately. Materials by others are required to be fit for the purpose as detailed in this catalog and the product installation literature.

Notes:

1. Required for electrical feature, Suffix "-SAFE" or "-SECURE".
2. LBR available on 7160(F90) and 7170(F90) devices only.
3. For double cylinder devices, suffix "-2" after fourth digit.
4. If "-24" device is to be used with a DOW greater than 24", the device will ship without UL label. The 12" touchpad will not cover 50% of the device touchbar length.
5. "WS" applies only to 7150(F), 7250M(F) and 7170(F) devices.
6. Maximum opening size 8'0" x 8'0".
7. Contact Ceco, Curries® or Fleming for detailed frame/door requirements and limitations.

7110(F) Surface Vertical Rod



The 7110(F) is a surface vertical rod exit device to be used on wide stile or flush doors up to 8' (fire) and 10' (panic) where two-point latching is desired.

Features

- Designed for wide stile and flush doors
- Handed. Specify hand (field reversible)
- Bottom deadbolt for secure latching
- Fully adjustable roller strike

Applications

- Pairs of doors
- Double egress
- Metal, wood or composite door materials



Specifications

| | |
|----------------------------|--|
| Door Opening Width | -24 for 24" (60cm) doors -36 for 30" - 36" (76cm - 91cm) doors -48 for 36" - 48" (91cm - 122cm) doors Optional sizes can be special ordered. Consult Technical Product Support. |
| Door Opening Height | Standard door height 7' (213cm), with the device centerline at 39-15/16" (101cm) from floor. Optional heights up to 8' (fire) and 10' (panic) available by using rod extensions. For fire rated openings over 8', see 7170F SVR. |
| Door Thickness | 1-3/4" (44mm) standard. Optional door thicknesses available to 4-1/2"; specify door thickness when ordering. |
| Minimum Stile Width | 4-1/2" (114mm) |
| Projection | 3-1/4" (83mm) active, 2-3/4" (70mm) dogged |
| Latchbolt | Top: 3/4" (19mm) throw, pullman-type with automatic deadlatching Bottom: 5/8" (16mm) throw deadbolt, held retracted during door swing |
| Vertical Rods | 1/2" O.D. tubular brass, bronze or stainless steel with rod guides |
| Strike | Top: Roller type 791. Bottom: Flush mounted 790. 794 floor strike optional (threshold openings). |
| Fasteners | Machine screws and wood door fasteners standard for panic hardware. Sex nuts and bolts supplied standard for fire exit hardware. |
| Trims | 620F series escutcheon trim, 630F series pull/thumbpiece trim, 680F series offset pull trim, 540F series rose trim. See pages 22-24. |
| ANSI/BHMA | Certified A156.3 Type 2, Grade 1 |
| UL/cUL | FVSR/FVSR7 - Panic hardware; GXHX/GXHX7 - Fire exit hardware (F) (8' x 8' pairs, 3 hr.) |
| Dogging | Hex key dogging supplied standard on panic devices |
| Options | Cylinder dogging, shim kit #724, sex nuts and bolts, rod extensions, bottom pullman latch (panic only) MicroShield®, Lumi-lite |
| Warranty | 5-year limited |





Escutcheons

| 480F Series | 500F Series | 510F Series | 620F/650F Series | 630F/660F/670F Series | 680F Series |
|-----------------------------|------------------------|------------------------|------------------------|---------------------------|------------------------|
| | | | | | |
| Projection: 2-13/32" (61mm) | Projection: see levers | Projection: see levers | Projection: see levers | Projection: 2-1/8" (54mm) | Projection: see levers |

Roses

540F Series



Projection: 3-1/2" (89mm)

Standard Trims

All Yale exit device trims (except mortise trim) feature the unique Free-Wheeling lever mechanism, similar to our 5400LN cylindrical lock. This Free-Wheeling trim features a clutch mechanism which allows the lever to float down 60 degrees when operated in the locked condition, improving vandal resistance.

| | | |
|----------------------------|---------------------------|----------------------------|
| Arcadia AR | Augusta AU | Carmel CR |
| | | |
| Projection: 3-1/4" (82mm) | Projection: 2-5/8" (61mm) | Projection: 3-1/8" (79mm) |
| Jefferson JN | Monroe MO | Pacific Beach PB |
| | | |
| Projection: 2-9/16" (65mm) | Projection: 3" (76mm) | Projection: 3-5/16" (84mm) |
| Pinehurst PN | Virginia VI | Hampton HA |
| | | |
| Projection: 3-1/16" (78mm) | Projection: 3-1/8" (79mm) | Projection: 3-3/8" (86mm) |

Note: Projection dimensions are provided using the 620F series escutcheon plates.

7100 Series Trims



620F and 650F Series Escutcheon Trim



- Certified ANSI/BHMA A156.3, Grade 1.
- Trim thrubolts to exit device for strength.
- Beveled sides improve attack resistance.
- Solid forged escutcheon and Free-Wheeling trim resists vandalism and abuse.
- Flush cylinder in 6-pin applications for additional security.
- 1-3/4" (44mm) door standard. For doors through 2-1/4" (57mm) or shim-mounted devices, specify on order.
- Dimensions: 3" x 10-1/4" x 13/16" (76mm x 260mm x 19mm).
- Cylinders not included. See page 45-48 for cylinder options. 1-1/2" mortise cylinder required for mortise trim.
- Available with AR, AU, CR, JN, MO, PB, PN, VI and HA lever designs. See page 22.
 - Finishes: 605, 606, 611, 612, 613E, 619, 626, 629, 630, 693, BSP
- Available with Reflections® lever designs. See page 21.
 - Finishes: 605, 606, 611, 612, 613E, 619, 626, 629, 630, BSP
- Trim ordering example: AU626F x 626 x RHR.
- 5-year limited warranty.



| Application | Cylinder | Classroom/ Storeroom Cylinder Controls Thumbturn | Exit Only Blank Plate | Nightlatch Access by Key | Classroom Cylinder Controls Lever | Storeroom Cylinder Controls Lever | Nightlatch Cylinder by Lever | Passage | Dummy Trim Free- Wheeling | Dummy Rigid Lever |
|--|------------------|--|-----------------------------|--------------------------------|--|--|------------------------------------|---------|------------------------------------|-------------------------|
| 7100(F) 7150(F) 7110(F) 7120(F) 7160(F) 7170(F) | Rim | 603F ¹ | 620F | 621F ² | 626F | 626F ¹ | 627F ² | 628F | 628F ¹ | 629F |
| 7130(F) | Mortise | — | 620F | 651F | 656F | — | 656F | 658F | — | 658F |
| 7100(F)-2 7150(F)-2 | Rim x Rim | — | — | — | 626F | — | — | — | — | — |
| 7130(F)-2 | Mortise x Rim | — | — | — | 656F | — | — | — | — | — |
| ANSI | | 11/12 | 01 | 03 | 08 | 09 | 03 | 14 | 02 | 02 |

1. 09, 12 and Free Wheeling 02 achieved with single trim modification at installation.
 2. Not recommended for use with vertical rod devices.
 3. 08 only
 For 626, 629 & 630 finishes the escutcheon is plated to simulate stainless steel.
 For 629 & 630 finishes the standard levers are plated to simulate stainless steel.
 Free-Wheeling is not available on mortise trim.
 For 620F series trim, optional door thickness available up to 4-1/2", specify on order.



Functions

Lever Trims

| SquareBolt® 7150(F) 7250 7250M(F) Inside Outside | | Rim 7100(F) 7200 7200M(F) Inside Outside | | Surface Vertical Rod 7110(F) 7170(F) 7210 7210M(F) Inside Outside | | Concealed Vertical Rod 7120(F) 7160(F) 7220 7220M(F) Inside Outside | | Mortise 7130(F) | Type | ANSI Function No. | Function Description |
|--|--|--|--|--|--|--|--|--------------------|---------------------------|-------------------|--|
| | | | | | | | | | Exit Only/ Blank Plate | 01 - | Exit only, no trim. Exit only, blank plate. |
| | | | | | | | | | Dummy | 02 | Entrance by trim when actuating bar is locked down. |
| | | | | | | | | | Nightlatch | 03 | Entrance by trim when latchbolt is retracted by key. Key removable only when locked. |
| | | | | | | | | | Classroom | 08 | Entrance by lever. Key locks or unlocks lever. |
| | | | | | | | | | Storeroom | 09 | Entrance by lever only when released by key. Key removable only when locked. |
| | | | | | | | | | Passage | 14 | Entrance by trim when latchbolt is released by lever. Lever always active, no cylinder. |

Note: 09 and Free-Wheeling 02 achieved with a single modification at installation.

Double Cylinder Exit Device Lever Trims

| SquareBolt® 7150(F)-2 Inside Outside | | Rim 7100(F)-2 Inside Outside | | Mortise 7130(F)-2 Inside Outside | | Type | ANSI Function No. | Function Description |
|--|--|------------------------------------|--|--|--|-----------|-------------------|---|
| | | | | | | Classroom | 08 | Entrance by lever. Key either side locks or unlocks lever. |

Functions



| SquareBolt® 7150(F) 7250 7250M(F) Inside Outside | Rim 7100(F) 7200 7200M(F) Inside Outside | Surface Vertical Rod 7110(F) 7170(F) 7210 7210M(F) Inside Outside | Concealed Vertical Rod 7120(F) 7160(F) 7220 7220M(F) Inside Outside | Mortise 7130(F) | Type | ANSI Function No. | Function Description |
|--|--|---|---|--------------------|---------------------------|-------------------------|--|
| | | | | | Exit Only/ Blank Plate | 01 - | Exit only, no trim. Exit only, blank plate. |
| | | | | | Dummy/ Pull Plate | 02 | Entrance by trim when actuating bar is locked down. |
| | | | | | Nightlatch | 03 | Entrance by trim when latchbolt is retracted by key. Key removable only when locked. |
| | | | | | Classroom | 05 | Entrance by thumbpiece. Key locks or unlocks thumbpiece. |
| | | | | | Storeroom | 06 | Entrance by thumbpiece only when released by key. Key removable only when locked. |
| | | | | | Passage | 15 | Entrance by trim when latch is released by thumbpiece. Thumbpiece is always active, no cylinder. |
| | | | | | Classroom | 11 | Entrance by control turn piece. Key locks or unlocks control. |
| | | | | | Storeroom | 12 | Entrance by control turn piece only when released by turning key. Key removable only when locked. |

Applications



7100 Series

The 7100 is the perfect choice for wide stile panic and fire-rated applications. The smooth architectural lines provide pleasing aesthetics to accent a building's appearance, and looks aren't always deceiving. Beneath the strong exterior lie the components to meet the demanding security and access control needs of today. The delayed egress option is just one of the many electromechanical options offered to enhance security. Complementing the 7100 series with the 600F series heavy-duty trim completes the package for a heavy-duty, security hardware package.

Applications

| Single Door | UL Listing | Maximum Opening | Application | | |
|-------------------------------|------------|-----------------|--|---|--|
| SquareBolt® | | | | | |
| 7150/7150-2 | Panic | 4' x * | Surface applied; single-point latching. | | |
| 7150F/7150F-2 | 3 Hr. | 4' x 8' | | | |
| 7150WS | Panic | 4' x 8' | Surface applied; single-point latching. Used as components in swinging door windstorm-rated assemblies (refer to local codes). | | |
| 7150FWS | 3 Hr. | 4' x 8' | | | |
| Rim | | | | | |
| 7100/7100-2 | Panic | 4' x * | Surface applied; single-point latching. | | |
| 7100F/7100F-2 | 3 Hr. | 4' x 8' | | | |
| Mortise | | | | | |
| 7130/7130-2 | Panic | 4' x * | Mortised in door; single-point latching. | | |
| 7130F/7130F-2 | 1-1/2 Hr. | 4' x 9' | | | |
| 7130F/7130F-2 | 3 Hr. | 4' x 8' | | | |
| Surface Vertical Rod | | | | | |
| 7110 | Panic | 4' x 8' | Surface applied; two-point latching. | | |
| 7170 | Panic | 4' x 10' | | | |
| 7170 x LBR | Panic | 4' x 10' | Surface applied; one-point latching. | | |
| 7170WS | Panic | 4' x 8' | Surface applied; two-point latching. Used as components in swinging door windstorm-rated assemblies (refer to local codes). | | |
| Concealed Vertical Rod | | | | | |
| 7120 | Panic | 4' x 8' | Rods concealed in door; two-point latching. | | |
| 7160 | Panic | 4' x 10' | | | |
| 7160 x LBR | Panic | 4' x 10' | | Rods concealed in door; one-point latching. | |

*UL does not set a door height limitation on panic applications.

| Pair of Doors with Removable Mullion | UL Listing | Maximum Opening | Application | |
|--------------------------------------|------------|-----------------|---|--|
| SquareBolt® x SquareBolt® | | | | |
| 7150 x 7150 x M200 Series | Panic | 8' x 10' | Two independent active doors with removable mullion. | |
| 7150F x 7150F x M200F Series | 3 Hr. | 8' x 8' | | |
| 7150WS x 7150WS x M200FWS | Panic | 8' x 8' | Two independent active doors with removable mullion. Used as components in swinging door windstorm-rated assemblies (refer to local codes). | |
| 7150FWS x 7150FWS x M200FWS | 3 Hr. | 8' x 8' | | |
| Rim x Rim | | | | |
| 7100 x 7100 x M200 Series | Panic | 8' x 10' | Two independent active doors with removable mullion. | |
| 7100F x 7100F x M200F Series | 3 Hr. | 8' x 8' | | |

Applications



| Pair of Doors | UL Listing | Maximum Opening | Application | |
|---|------------|-----------------|--|--|
| Surface Vertical Rod | | | | |
| 7110 x 7110 | Panic | 8' x 8' | Two independent doors with two-point latching, swinging in the same direction. | |
| 7110F x 7110F | 3 Hr. | 8' x 8' | | |
| 7170 x 7170 | Panic | 8' x 10' | Two independent doors with one- or two-point latching, swinging in the same direction. | |
| 7170F90 x 7170F90 | 1-1/2 Hr. | 8' x 10' | | |
| 7170F x 7170F | 3 Hr. | 8' x 8' | Two independent doors with two-point latching, swinging in opposite directions. Used as components in swinging door windstorm-rated assemblies (refer to local codes). | |
| 7170WS x 7170WS | Panic | 8' x 8' | | |
| 7170FWS x 7170FWS | 1-1/2 Hr. | 8' x 8' | | |
| Surface Vertical Rod (Double Egress) | | | | |
| 7110 x 7110 | Panic | 8' x 8' | Two independent doors with two-point latching, swinging in opposite directions. Overlapping astragal required for 3-hour openings. | |
| 7110F x 7110F | 3 Hr. | 8' x 8' | | |
| 7170 x 7170 | Panic | 8' x 10' | Two independent doors with one- or two-point latching, swinging in opposite directions. Overlapping astragal not required. | |
| 7170F90 x 7170F90 | 1-1/2 Hr. | 8' x 10' | | |
| 7170F x 7170F | 3 Hr. | 8' x 8' | | |
| Surface Vertical Rod x Mortise | | | | |
| 7110 x 7130 | Panic | 8' x 8' | Overlapping astragal required for 3-hour openings. Coordinator required with standard ANSI strike. | |
| 7110F x 7130F | 3 Hr. | 8' x 8' | | |
| 7110F x 7130F x Open Back Strike | 1-1/2 Hr. | 8' x 8' | Overlapping astragal required for fire-rated openings. Coordinator required with standard ANSI strike. | |
| 7170 x 7130 | Panic | 8' x 10' | | |
| 7170F90 x 7130F | 1-1/2 Hr. | 8' x 9' | | |
| Concealed Vertical Rod | | | | |
| 7120 x 7120 | Panic | 8' x 8' | Two independent metal doors with two-point latching, swinging in the same direction. | |
| 7120F x 7120F | 3 Hr. | 8' x 8' | | |
| 7160 x 7160 | Panic | 8' x 10' | Two independent metal or wood doors with one- or two-point latching, swinging in the same direction. | |
| 7160F90 x 7160F90 | 1-1/2 Hr. | 8' x 10' | | |
| 7160F x 7160F | 3 Hr. | 8' x 8' | | |
| Concealed Vertical Rod (Double Egress) | | | | |
| 7120 x 7120 | Panic | 8' x 8' | Two independent metal doors with two-point latching, swinging in opposite directions. Overlapping astragal required for 3-hour openings. | |
| 7120F x 7120F | 3 Hr. | 8' x 8' | | |
| 7160 x 7160 | Panic | 8' x 10' | Two independent metal or wood doors with one- or two-point latching, swinging in opposite directions. Overlapping astragal not required. | |
| 7160F90 x 7160F90 | 1-1/2 Hr. | 8' x 10' | | |
| 7160F x 7160F | 3 Hr. | 8' x 8' | | |

Sample Specifications



Specification

Exit devices shall be 7000 Series Pushpad Exit Devices as manufactured by Yale Locks & Hardware.

The exit device chassis shall be cold forged steel, electroplated for corrosion resistance, and shall be architecturally finished brass, bronze or stainless steel. The pushpad mechanism shall be constructed of extruded aluminum and shall be scalped with architecturally finished brass, bronze or stainless steel. The maximum projection shall be 3-1/4" when the pushpad is active and 2-3/4" when the pushpad is dogged down. Nylon bearings and stainless steel springs shall be used for long life and durability; only torsion springs are acceptable. Rear and active case covers shall be wrought brass or bronze and shall be plated to match the exit bar. Plastic or painted covers are not acceptable. Latchbolts shall be steel and shall incorporate a deadlocking latch for increased security. Devices without deadlocking latches are not acceptable. Mounting screws shall be concealed to deter tampering. Devices shall be closed on all sides with no pinch points. Exit devices shall be easily field sized to accommodate various door widths.

Panic-listed exit devices shall have single point, one quarter turn hex key dogging standard. Optional cylinder dogging shall be available on panic listed devices. Devices with hex key dogging shall be easily field converted to cylinder dogging. Panic listed devices shall be available less dogging.

Trims shall be throughbolted with concealed fasteners. Escutcheon and pull-type trims shall be constructed of brass or bronze. All lever trims shall use cast or forged levers. On rim, SquareBolt® and vertical rod trims with cylinders, the mechanism that locks and unlocks the trim shall be housed in the trim and not in the active case of the exit device. Lever trims (except mortise) shall be Free-Wheeling with clutch mechanism allowing lever to rotate 60° when locked for ideal protection. Lever trims shall match those on Yale® mortise and cylindrical locksets.

Exit devices and trims shall be furnished in ANSI/BHMA standard architectural finishes.

Exit devices shall be listed by Underwriters Laboratories (UL) for safety as panic hardware. Fire-rated devices shall be listed for A label and lesser class doors.

Certification:
ANSI/BHMA A156.3, Grade 1

Devices, trims and cylinders shall be from one manufacturer.

Devices and 600 Series trim shall carry a five-year limited warranty.

500 Series trim shall carry a one-year limited warranty.

Electronic components shall carry a two-year limited warranty.

Delayed Egress Specification

Delayed egress exit devices shall be 7100/7200 Series (rim, SquareBolt®, mortise or concealed vertical rod) with the "D" suffix, manufactured by Yale Locks & Hardware.

The delayed egress device secures the door in the locked mode. Depressing the pushpad for less than three seconds will sound the device siren without initiating the alarm. Depressing the pushpad longer than three seconds will initiate an irreversible local audible beeping tone and allow the device to release for egress after 15 seconds. The alarm will continue until reset by the mechanical key switch located on the device. (When acceptable by local code agency, the delay period may be increased to 30 seconds, or other approved amount of time. Consult factory.)

Devices shall be 24 volts DC.

The exit device chassis shall be cold forged steel, electroplated for corrosion resistance, and shall be architecturally finished brass, bronze or stainless steel. The pushpad mechanism shall be constructed of extruded aluminum and shall be scalped with architecturally finished brass, bronze or stainless steel. The maximum projection shall be 3-1/4" when the pushpad is active and 2-3/4" when the pushpad is depressed. Nylon bearings and steel springs shall be used for long life and durability. Active case and alarm end cover shall be wrought brass, bronze or stainless steel and shall be plated to match the exit bar. Painted or plastic covers or end caps are not acceptable. Latchbolts shall be steel and shall incorporate a deadlocking latch for increased security. Devices without deadlocking latches are not acceptable. Mounting screws shall be concealed to deter tampering. Devices shall be closed on all sides with no pinch points. Device active cover and end cap attaching screws shall be security TORX®. When required, door position switches used on rim or SquareBolt devices shall be incorporated into the latch assembly of the device to allow added security.

Trims shall be thru-bolted with concealed fasteners. Escutcheon and pull-type trims shall be constructed of brass, bronze or stainless steel. All lever trims shall use cast or forged levers. On rim, SquareBolt and vertical rod trims with cylinders, the mechanism that locks and unlocks the trim shall be housed in the trim and not in the active head of the exit device. Lever trims shall match those on Yale mortise and cylindrical locksets. Lever trims (except mortise) must have a clutch or Free-Wheeling spring assembly when in the locked mode for ideal protection and reduced damage to the trim. Rigid lever trims are not acceptable.

Exit devices, trims and cylinders must be from one manufacturer.

Exit Device Escutcheon Lever Trim

Manufacturer: Schlage

Style/Series: 626f Exit Device Escutcheon Lever Trim

Sales Rep

Primary

Nick Batrouney

Email: nickb@discoverParagon.com

Attributes

Exit Device Escutcheon Lever Trim

Type: 626F Exit Device Escutcheon Lever Trim

DIMENSIONS

Width: 3"

Length: 10-1/4"

Thickness: 13/16"

Depth: 2-5/8" Projection

MATERIAL / FINISH

Finish: 630 Stainless Steel

Material Composition: Stainless Steel

PERFORMANCE

Accessibility Compliance : Meets ADA requirements - A117.1

Accessibility Code Certified ANSI/BHMA A156.3, Grade 1

Accessories: AU - Augusta Lever

Classification: Entry / Classroom, Storeroom

Operation: Completely Reversible Handing

Quality Standards: Certified ANSI/BHMA A156.3, Grade 1

MISCELLANEOUS



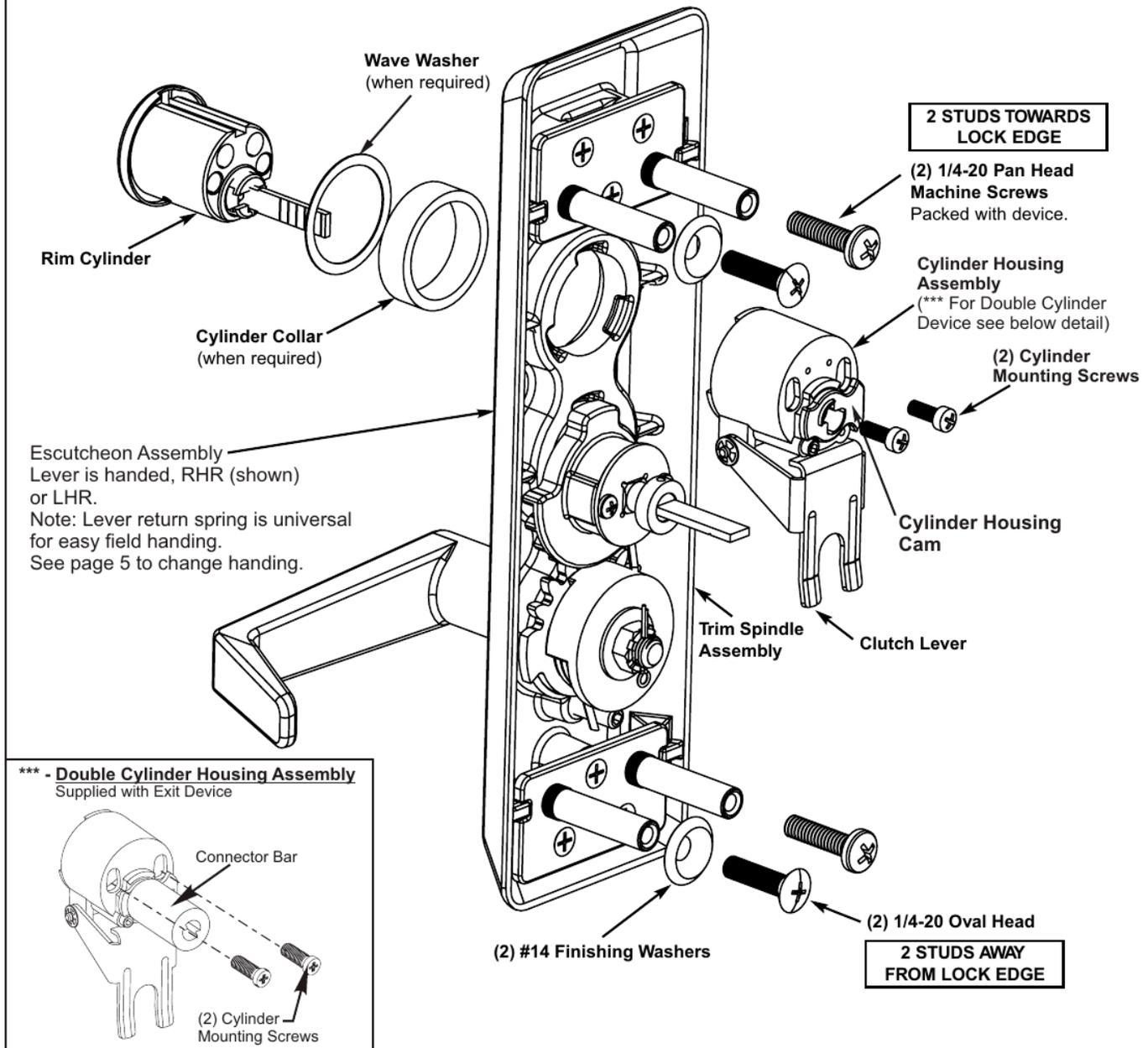


626F Exit Device Trim Installation Instructions

For use with all Yale® 7000, 2100,
1800 and 1500 Series Exit Devices
(Wood and Metal Doors)

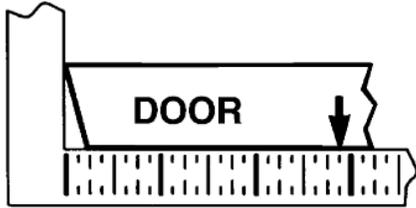
Attention Installer

Any retrofit or other field modification to a fire rated opening can potentially impact the fire rating of the opening, and Yale Locks & Hardware makes no representations or warranties concerning what such impact may be in any specific situation. When retrofitting any portion of an existing fire rated opening, or specifying and installing a new fire-rated opening, please consult with a code specialist or local code official (Authority Having Jurisdiction) to ensure compliance with all applicable codes and ratings.

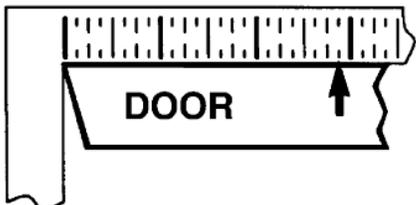


Installation Instructions

1. Assemble trim. See page 4 for components and instructions.
2. After marking door inside face for device location (Device Instructions) transfer Vertical Reference Centerline from inside to outside door face. Follow steps 2a and 2b below.
3. Transfer Horizontal Reference Centerline from inside to outside door face.
4. Align trim template and tape to outside door face. **CAUTION:** Office copiers and facsimile machines may change the size of a drawing and make the template inaccurate to use as a door marker. If this is not the original template packed with the trim, use only the dimensions written on the template to locate the holes on the door. (Do not use the template as a door marker)

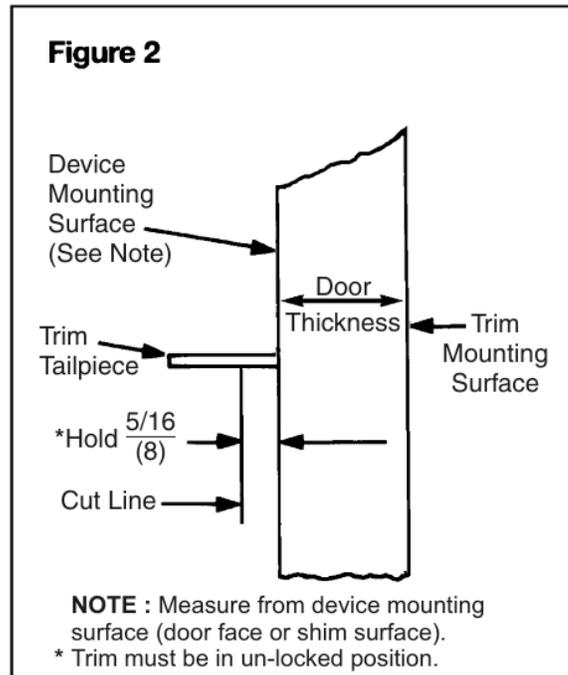
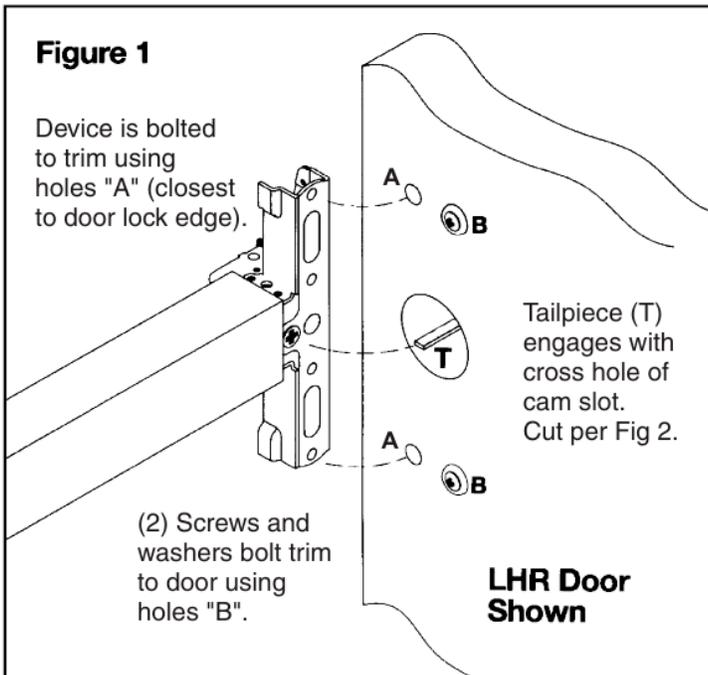


2a. MEASURE INSIDE LINE LOCATION.

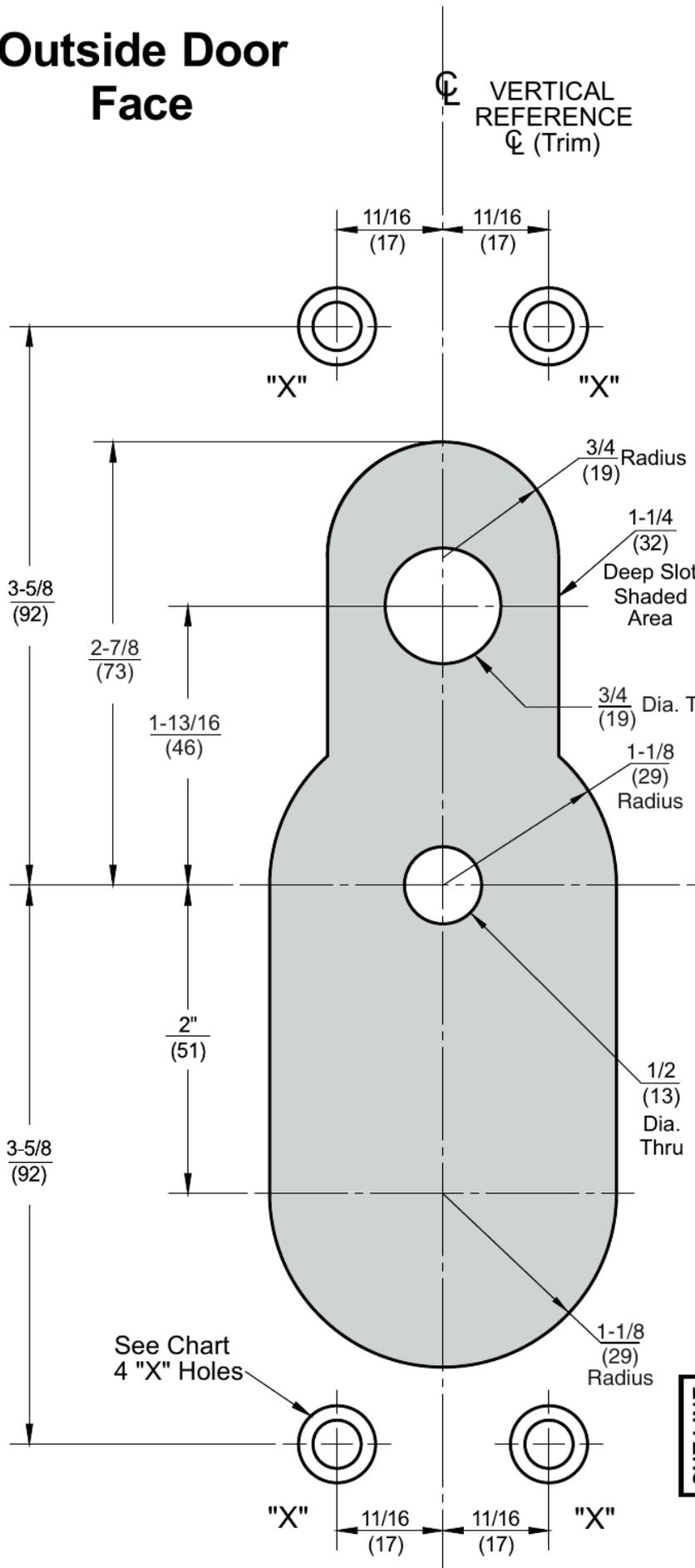


2b. TRANSFER DIMENSION TO OUTSIDE FACE.

5. Spot holes and prepare door for trim.
6. Mount trim to door thru holes "B". Fasten finger tight only with 2 screws and washers seating on door as shown in Figure 1.
7. Cut trim tailpiece as shown in Figure 2.
8. Seat device so that trim tailpiece penetrates cam slot as shown in Figure 1. Continue as shown in device instructions.



Outside Door Face



Trim Template

| HOLES MARKED "X" (4 Places) | |
|--------------------------------|---------------------|
| METAL DOORS: | |
| Inside Face | 5/16" (8) Dia. |
| Outside Face | 1/2" (13) Dia. |
| WOOD DOORS: | |
| | 1/2" (13) Dia. Thru |

Dimensions given in $\frac{\text{Inches}}{\text{(mm)}}$

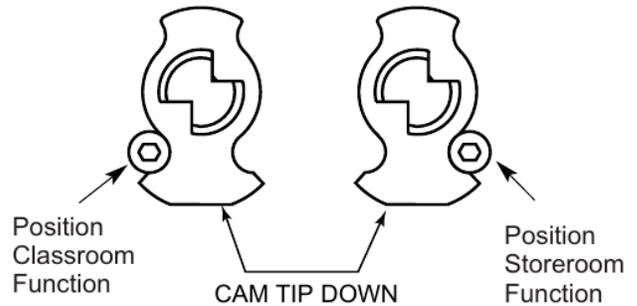
HORIZONTAL REFERENCE
 ϕ (Device and Trim)



Trim Assembly Instructions

- 1. Check cylinder components.**
NOTE: Cylinders longer than 1-1/4" (32) will require collars.
 Refer to Yale® cylinder collar chart, below.
- 2. When required, cut cylinder tailpiece.**
- 3. Assemble cylinder.**
 Insert cylinder housing prongs into matching notches of escutcheon.
 Pass cylinder tailpiece thru cylinder collar (when required) and slot in cylinder housing cam.
 Fasten cylinder using (2) mounting screws.
DO NOT OVER TIGHTEN SCREWS.
- 4. Check cylinder action.**
 Rotate cylinder tailpiece to cam the clutch lever down.
 This depresses the trim spindle assembly which disengages the trim spindle from the lever handle, putting the trim in a free-wheeling, locked mode.
- 5. To Change Trim Function:**
 Rotate cam tip to down position (locked mode).
 Move function screw as shown.

Function Screw Position



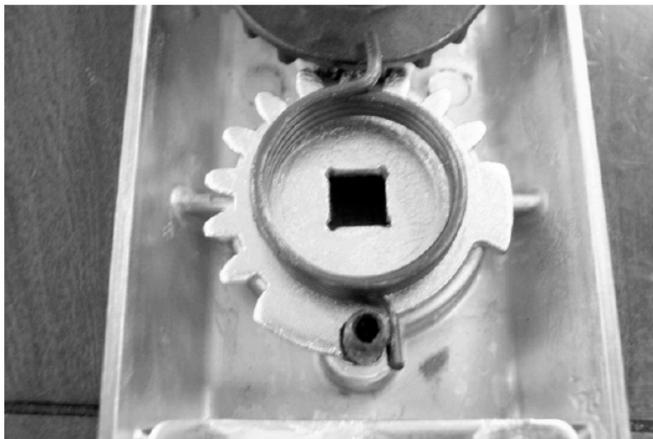
| Yale® Cylinder Collar Chart | |
|--------------------------------|------------|
| Cylinder Length | Collar |
| 1-1/8" (29) | None |
| 1-1/4" (32) | None |
| 1-1/2" (38) | 1765.250** |

** Specify finish

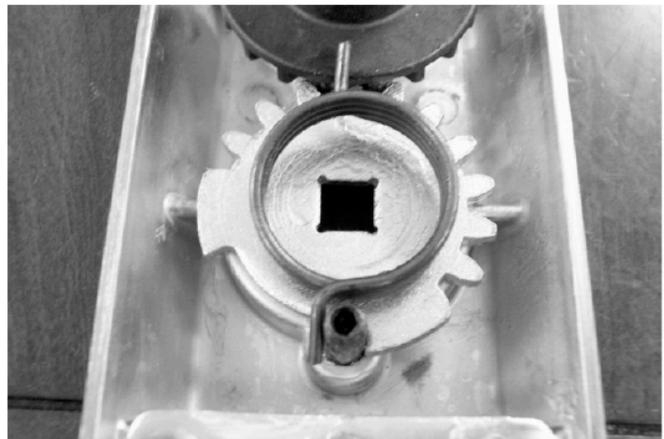
How to Change Handing

626F, 627F, 628F, 690F and 691F Series Exit Device Trim

Left Hand Reverse Gear & Spring Orientation



Right Hand Reverse Gear & Spring Orientation



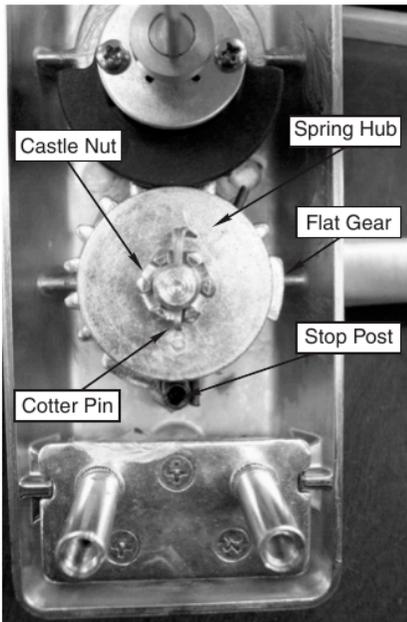
Notes:

1. During change ensure black driven gear does not rotate.
2. Please wear safety glasses and be aware of spring tension on spring hub upon removal and assembly.
3. Light lubrication is recommended under flat gear, white lithium grease can be used.

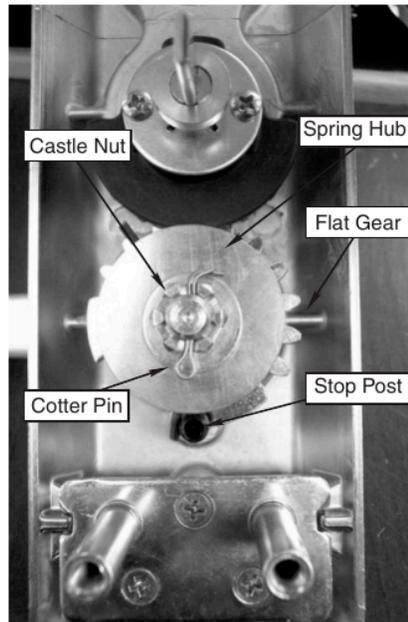
To Change Hands:

Tools Needed: Needle Nose pliers, Crescent wrench.

LEFT HAND REVERSE



RIGHT HAND REVERSE



Notch for spring to engage for left hand reverse operation



Spring orientation for right hand reverse operation



1. Remove cotter pin.
2. Remove castle nut.
3. Remove washer.
4. Carefully pull up on spring hub to disengage spring.
5. Remove spring and note orientation.
6. Remove lever handle.
7. Pick-up flat gear, flip and orient stop on opposite side of stop post. See pictures for orientation.
8. Install spring upside down from original orientation and place spring leg on opposite side of stop post from original installation orientation. See pictures for orientation.
9. Install lever 180 degrees from original position.
10. Install spring hub with stamped number in the 6 o'clock position.
11. Rotate spring leg around with needle nose pliers to engage notch in spring hub, refer to pictures for reference position. Press down on spring hub to ensure complete engagement.
12. Install washer.
13. Install castle nut, do not over tighten, verify by insuring lever returns horizontally on its own.
14. Install cotter pin.

online literature and templates

For the latest information on Yale Locks & Hardware products, visit our website at: www.yalelocks.com

Click on the "Product Information" button to find:

- Catalogs
- Parts manuals
- Templates
- Specifications
- Installation instructions

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Weatherstrip - Standard Perimeter Gas...

Manufacturer: Assa Abloy - Rockwood Hardware

Style/Series: 303 Pk Ms

Sales Rep

Primary

Nick Batrouney

Email: nickb@discoverParagon.com

Secondary

Chris Hobbs

Email: chris.hobbs@assaabloy.com

Attributes

Weatherstrip - Standard Perimeter Gasketing

Type: 303APK 72" x 84"

DIMENSIONS

Width: 7/8" (22.2 mm)

Length: Up to 120"

Height: 1/4" (6.4 mm)

Weight: Estimated per foot: 0.07 lbs

MATERIAL / FINISH

Finish: A - Mill Finish Aluminum Aluminum with Gray PemkoPrene

insert6063-T6 Aluminum Alloy and Temper Retainer

Material Composition: 6063-T6 Aluminum Alloy and Temper

Retainer

PERFORMANCE

Best Practices: ANSI R3G164 ANSI/BHMA A156.22 – Door Gasketing and Edge Seal Systems

Fire/Smoke Rating: Tested to UL 1784 and meets the requirements of NFPA 105-2013 for smoke leakage in an opening; allows no more than 3.0 cfm per square foot at 0.10" water column (about 75 Pa).

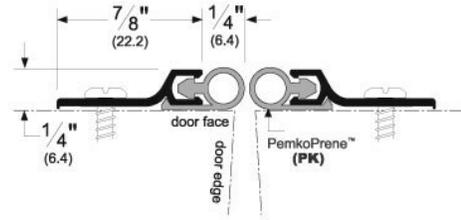
Tested to UL10B Standard Fire Tests and UL10C Positive Pressure

Fire Tests of Door Assemblies

MISCELLANEOUS

Lead Time: 4 working days (or less)

Warranty: 5 Years from purchase date



Architectural Door Accessories

ASSA ABLOY

Pemko Astragals & Meeting Stiles:
Astragals & Meeting Stile Gasketing-Split Astragals

The global leader in
door opening solutions

303_PK (MS)



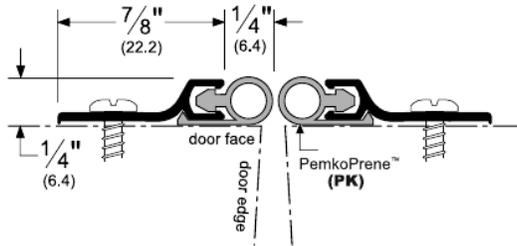
**ORDER TWO
(AS A PAIR)**

AVAILABLE FINISHES: **A, BDG, D, G, PW, SN**

PROFILE WIDTH: **7/8" (22.2 mm) (x2)**

TOTAL WIDTH WITH INSERT: **1-1/8" (28.6 mm) (x2)**

HEIGHT: **1/4" (6.4 mm)**



A (Mill Finish Aluminum)

BDG (Bright Dip Gold Anodized Aluminum)

D (Dark Bronze Anodized Aluminum)

G (Gold Anodized Aluminum)

PW (Painted White Aluminum)

SN (Satin Nickel Anodized Aluminum)

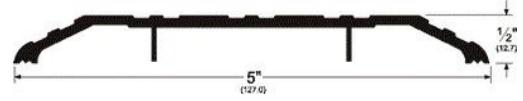
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| |
|---------------|
| TITLE: |
| PREPARED FOR: |
| PREPARED BY: |
| DATE: |
| COMMENTS: |

303_PK_CUT Rev 1 - 02.10.17

Saddle Threshold

Manufacturer: ASSA ABLOY/Pemko
Style/Series: 171A



Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Secondary

Chris Hobbs
Email: chris.hobbs@assaabloy.com

Attributes

Saddle Threshold

Type: Threshold

MATERIAL/FINISH

Finish: 171A: Mill Finish Aluminum Aluminum

PERFORMANCE

Quality Standards: Barrier-Free; BHMA Certified; Fire Rated - UL10C
- Positive Pressure; UL 4L10

MISCELLANEOUS

Lead Time: 3-5 business days
Warranty: Ten year limited warranty

CUSTOM FIELDS

Notes

Special Instructions

Refer to door hardware schedule for hardware locations

Architectural Door Accessories

ASSA ABLOY

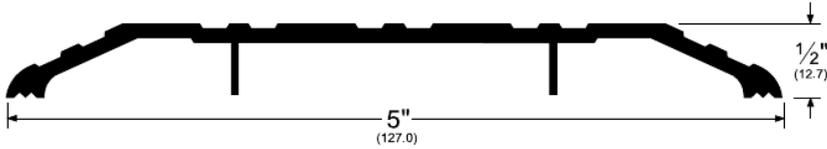
Pemko Commercial Thresholds: Saddle Thresholds

The global leader in
door opening solutions

171_



AVAILABLE FINISHES: A, B, BDG, D, G, SN
WIDTH: 5" (127.0 mm)
HEIGHT: 1/2" (12.7 mm)



- A (Mill Finish Aluminum)
- B (Mill Finish Extruded Bronze [Brass])
- BDG (Bright Dip Gold Anodized)
- D (Dark Bronze Anodized)
- G (Gold Anodized)
- SN (Satin Nickel Anodized)

| |
|---------------|
| TITLE: |
| PREPARED FOR: |
| PREPARED BY: |
| DATE: |
| COMMENTS: |

Bottom door sweep

Manufacturer: Assa Abloy - Rockwood Hardware
Style/Series: 315CN

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Secondary

Chris Hobbs
Email: chris.hobbs@assaabloy.com

Attributes

Bottom door sweep

Item Type: Door sweep

DIMENSIONS

Height: 1-11/16"

Thickness: 1/4" with 7/16" neoprene insert

MATERIAL / FINISH

Color: Clear Anodized Aluminum

Finish: CN

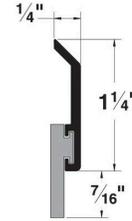
Material Composition: Aluminum alloy and temper retainer with neoprene insert

PERFORMANCE

Accessibility Compliance : ADA and ANSI A117.1

Fire/Smoke Rating: UL10C Positive Pressure Fire Tests of Door Assemblies

Quality Standards: ANSI/BHMA A156.22 American National Standard for Gasketing



Architectural Door Accessories

Pemko Door Bottoms: Door Bottom Sweeps

315_N

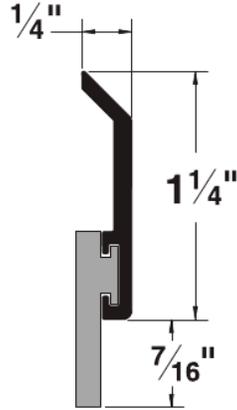


AVAILABLE FINISHES: B, C, D, G, PW, SN

WIDTH: 1/4" (6.4 mm)

PROFILE HEIGHT: 1-1/4" (31.8 mm)

TOTAL HEIGHT WITH INSERT: 1-11/16" (42.9 mm)



- B** (Mill Finish Extruded Bronze [Brass])
- C** (Clear Anodized Aluminum)
- D** (Dark Bronze Anodized Aluminum)
- G** (Gold Anodized Aluminum)
- PW** (Painted White Aluminum)
- SN** (Satin Nickel Anodized Aluminum)

| |
|---------------|
| TITLE: |
| PREPARED FOR: |
| PREPARED BY: |
| DATE: |
| COMMENTS: |

ASSEMBLY, DOOR HARDWARE

Manufacturer: VARIOUS MANUFACTURERS
Style/Series: Exterior Dryers (door #28)

**DOOR
HARDWARE**

8 NESTED ITEMS

| Code/Tag | Product Name | Quantity |
|------------|---------------------------|----------|
| DH-028-CLR | BB5200 Heavy Weight Hinge | 0.0 |
| DH-028-MK | APB91 Heavy Weight Hinge | 0.0 |
| DH-031-PK | 171A | 0.0 |
| DH-034-CLR | N900PBF Door Closer | 0.0 |
| DH-034-YA | 2700 Series Door Closer | 0.0 |
| DH-045-YA | AU-4605LN Lock | 0.0 |
| DH-065-PK | 303 Pk Ms | 0.0 |
| DH-091-PK | 315CN | 0.0 |

Cal-Royal BB5200 4.5" x 4.5" Heavy We...

Manufacturer: Cal-Royal Door Hardware
Style/Series: BB5200 Heavy Weight Hinge

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

Cal-Royal BB5200 4.5" x 4.5" Heavy Weight NRP Ball Bearing Hinge
(Non-Removable Pin)

Item Type: BB5200

DIMENSIONS

Width: 4.5"
Height: 4.5"

MATERIAL / FINISH

Finish: 652 Satin Chrome
Material Composition: 1040 steel or 304 series stainless steel

PERFORMANCE

Operation: For heavy weight doors – High frequency usage

HINGE

Knuckle: 5
Ball Bearings: 4

Notes

Manufacturer Page: <https://tinyurl.com/2473nfd>



MacPRO Five Knuckle Heavy Weight Hinge

Manufacturer: Assa Abloy - McKinney Hardware
Style/Series: APB91 Heavy Weight Hinge

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

MacPRO Five Knuckle Heavy Weight Hinge

Item Type: McKinney MPB91

DIMENSIONS

Width: 4 1/2"

Height: 4"

MATERIAL / FINISH

Finish: US32D/630

Material Composition: Stainless

PERFORMANCE

Quality Standards: A5112 Grade 2 ANSI/BHMA 156.1, 156.7, 156.17

HINGE

Knuckle: 5



Saddle Threshold

Manufacturer: ASSA ABLOY/Pemko
Style/Series: 171A

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Secondary

Chris Hobbs
Email: chris.hobbs@assaabloy.com

Attributes

Saddle Threshold

Type: Threshold

MATERIAL/FINISH

Finish: 171A: Mill Finish Aluminum Aluminum

PERFORMANCE

Quality Standards: Barrier-Free; BHMA Certified; Fire Rated - UL10C
- Positive Pressure; UL 4L10

MISCELLANEOUS

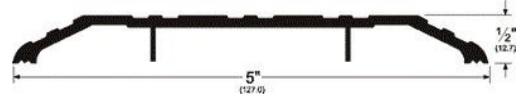
Lead Time: 3-5 business days
Warranty: Ten year limited warranty

CUSTOM FIELDS

Notes

Special Instructions

Refer to door hardware schedule for hardware locations



Architectural Door Accessories

ASSA ABLOY

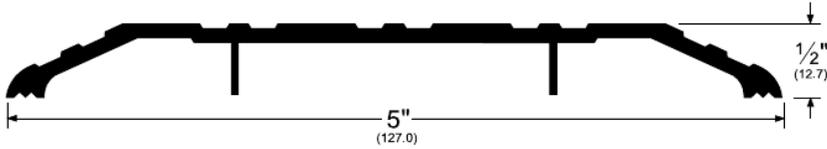
Pemko Commercial Thresholds: Saddle Thresholds

The global leader in
door opening solutions

171_



AVAILABLE FINISHES: A, B, BDG, D, G, SN
WIDTH: 5" (127.0 mm)
HEIGHT: 1/2" (12.7 mm)



- A (Mill Finish Aluminum)
- B (Mill Finish Extruded Bronze [Brass])
- BDG (Bright Dip Gold Anodized)
- D (Dark Bronze Anodized)
- G (Gold Anodized)
- SN (Satin Nickel Anodized)

| |
|---------------|
| TITLE: |
| PREPARED FOR: |
| PREPARED BY: |
| DATE: |
| COMMENTS: |

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171_CUT Rev 1 - 02.16.17

Manufacturer: CAL-ROYAL
Style/Series: N900PBF Door Closer

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

Item Type: N900PBF Door Closer

DIMENSIONS

Length: 11 3/4"

Height: 2"

Depth: 2 7/8"

MATERIAL / FINISH

Finish: US26D Satin Chrome

Material Composition: Cast Aluminum Body

PERFORMANCE

Accessibility Compliance : Meets ADA requirements - A117.1

Accessibility Code

Best Practices: ANSI 156.4 Grade 1

Fire/Smoke Rating: UL Listed

MISCELLANEOUS

Warranty: Limited Lifetime Warranty

CUSTOM FIELDS

SURFACE CLOSER

Cover Material : Full plastic cover standard

Mounting Type: Parallel Arm (Push Side), Regular (Pull Side), Top

Jamb (Push Side)

Opening Degree : up to 180 degrees



4400 Series Door Closer

Manufacturer: Assa Abloy - Yale Locks & Hardware
Style/Series: 2700 Series Door Closer

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

4400 Series Door Closer

DIMENSIONS

Door Thickness: 1 3/4"

MATERIAL / FINISH

Finish: 689

Material Composition: Cast aluminum body

PERFORMANCE

Best Practices: ANSI/BHMA A156.4, Grade 1

Accessibility Compliance : comply with requirements for the Americans with Disabilities Act ANSI/BHMA A117.1

Fire/Smoke Rating: UL / cUL listed for use on fire rated doors

Operation: Rack and pinion design

MISCELLANEOUS

Warranty: 30-year limited warranty

CUSTOM FIELDS

SURFACE CLOSER

Cover Material : Molded plastic cover

Opening Degree : All standard arm applications allow doors to swing 180°, conditions permitting



Storeroom or Closet Lock

Manufacturer: Assa Abloy - Yale Locks & Hardware
Style/Series: AU-4605LN Lock

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

Storeroom or Closet Lock

Item Type: AU-4605LN

DIMENSIONS

Latchbolt: 2-3/4" (70mm) backset, 1/2" (13mm) throw latchbolt plain or deadlocking

Length: 4-3/4"

Depth: 2-1/2"

Diameter: 3-3/8"

MATERIAL / FINISH

Finish: 626 stain chrome plated

Material Composition: Lever: Cast Zinc Rose: Wrought Brass

PERFORMANCE

Accessibility Compliance : ADA compliant

Best Practices: Certified Grade 2, ANSI/BHMA A156 2, Series 4000

Fire/Smoke Rating: Listed for 3 hour fire doors

Handing: Non-handed, field reversible

MISCELLANEOUS

Warranty: 3 years





4600LN Series

ANSI/BHMA Grade 2 Certified Cylindrical Locks



Table of Contents



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| | |
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| Benefits & Features..... | 3 |
| How to Order | 4 |
| Finishes | 5 |
| Trim Designs..... | 6 |
| Functions..... | 7 |
| Cylinders/Keying | 8 |
| Latchbolts | 9 |
| Strikes..... | 10 |

4600LN Cylindrical Locks

Yale® 4600LN cylindrical locks are the ideal choice for a wide variety of commercial applications where consistent quality, ease of use and installation are required at an economical price. The 4600LN Series is certified to ANSI/BHMA Grade 2 standards and is UL fire-listed for all functions, ensuring reliability and peace of mind.

To make your building work better with your budget, Yale Works for YouSM.

Benefits & Features



Benefits

- **Versatile:** Field reversible handing and other product options offer flexibility in many commercial applications
- **Economical:** Priced affordably to suit projects of all budgets
- **Secure:** Quality security from a trusted brand for over 170 years
- **Strong & Reliable:** ANSI/BHMA Grade 2 certified for long life and reliability

Features

- Field reversible handing for easy installation
- Range of functions and options for a wide variety of commercial applications
- Available in five trims and six finishes
- ADA compliant for ease of accessibility



Specifications

| | |
|-----------------------|---|
| Door Prep | ANSI/BHMA A156.115 |
| Door Thickness | Adjustable for doors 1-3/8" to 1-3/4" (35mm to 44mm) |
| Backset | 2-3/4" (70mm) standard, 2-3/8" (60mm) optional |
| Handing | Non-handed, field reversible |
| Latchbolt | 2-3/4" (70mm) backset, 1/2" (13mm) throw latchbolt plain or deadlocking. See page 9 for additional options. |
| Strike | ANSI strike 4-7/8" x 1-1/4" x 1-1/4" (124mm x 32mm x 32mm) lip to center. See page 10 for additional options. |
| Through-bolts | Optional through-bolts provided. Installation is at the discretion of the installer. |
| ANSI/BHMA | Certified Grade 2, ANSI/BHMA A156.2, Series 4000 |
| UL/cUL | Listed for 3 hour fire doors |
| Windstorm | Certified, check local codes. |
| Warranty: | 3 years |



Hurricane



How To Order



| Design | Function | Hand | Latch | Strike | Cylinder | Door Thickness | Keying | Finish |
|--------------------|--|---------------------|-------------------------|--|--|--|--|---|
| AU - Augusta | 4601LN - Passage or Closet Latch | Specify RH LH | See page 9 for options. | 497 strike standard See page 10 for additional options. | 1806 6-pin cylinder standard; see page 8 for additional options. | Adjustable between 1-3/8" to 1-3/4"; factory preset for 1-3/4" | KR (keyed random) standard, see page 8 for additional details/options. | 605 - Bright Brass, Clear Coated 606 - Satin Brass, Clear Coated 613E - Dark Oxidized Satin Bronze - equivalent 625 - Bright Chrome Plated 626 - Satin Chrome Plated BSP - Black Suede Powder Coat |
| MO - Monroe | 4602LN - Privacy, Bedroom or Bath Lock | | | | | | | |
| PB - Pacific Beach | 4604LN - Entry Lock | | | | | | | |
| UB | 4605LN - Storeroom or Closet Lock | | | | | | | |
| | 4607LN - Entry Lock | | | | | | | |
| | 4608LN - Classroom Lock | | | | | | | |
| | 4628LN - Communicating Passage Lock | | | | | | | |
| | 4655LN - Single Dummy Trim | | | | | | | |

Ordering Example

| Design | Function | Hand | Latch | Strike | Cylinder | Door Thickness | Keying | Finish |
|--------|----------|------|--------|--------|----------|----------------|--------|--------|
| AU | 4607LN | RH | MCD234 | 497 | 1806 | 1-3/4" | KR | 626 |

Finishes



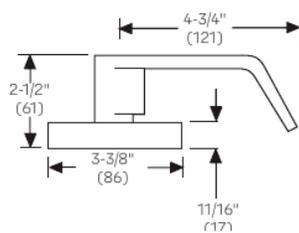
| ANSI/BHMA Code Finish Description | | |
|--|--|--|
| 605 Bright Brass, Clear Coated | 606 Satin Brass, Clear Coated | 613E Dark Oxidized Satin Bronze - equivalent |
|  |  |  |
| 625 Bright Chrome Plated | 626 Satin Chrome Plated | BSP Black Suede Powder Coat |
|  |  |  |

Trim Designs



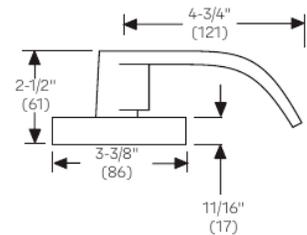
Augusta AU

Lever: Cast Zinc
Rose: Wrought Brass



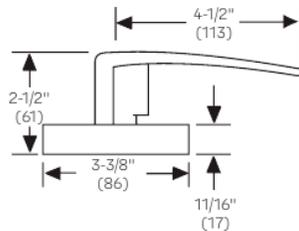
Pacific Beach PB

Lever: Cast Zinc
Rose: Wrought Brass



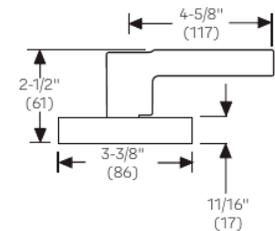
Monroe MO

Lever: Cast Zinc
Rose: Wrought Brass



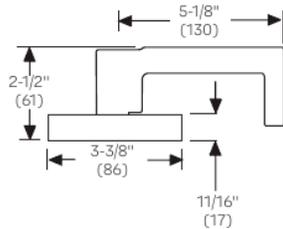
TB

Lever: Cast Zinc
Rose: Wrought Brass



UB

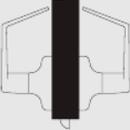
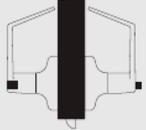
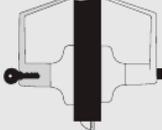
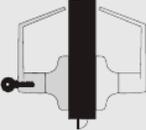
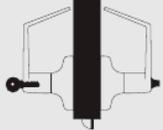
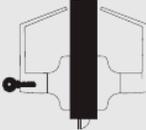
Lever: Cast Zinc
Rose: Wrought Brass



All levers available with small format interchangeable core. See page 8 for details.

Dimensions shown are in inches/mm.



| | | |
|---|--|---|
| <p style="text-align: center;">4601LN (F75)</p>  <p>Passage or Closet Latch</p> <ul style="list-style-type: none"> • For doors that do not require locking. • Either lever operates latchbolt at all times. | <p style="text-align: center;">4602LN (F76A)</p>  <p>Privacy, Bedroom or Bath Lock</p> <ul style="list-style-type: none"> • For lavatory or other privacy doors. • Either lever operates latchbolt unless outside lever is locked by pushbutton inside. • Button automatically releases when inside lever is turned or door is closed. • Emergency release in outside lever. • Inside lever always active. | <p style="text-align: center;">4604LN (F82A)</p>  <p>Entry Lock</p> <ul style="list-style-type: none"> • For entrance or office doors. • Deadlocking latchbolt. • Either lever operates latchbolt (except when outside lever is locked from inside).* • Pushing button in inside lever locks outside lever. (Automatically releases when inside lever is turned or key is rotated in locked outside lever.) • Latchbolt is operated by key in outside lever or by rotating inside lever. • Inside lever always active. |
| <p style="text-align: center;">4605LN (F86)</p>  <p>Storeroom or Closet Lock</p> <ul style="list-style-type: none"> • For use on storeroom, utility, exit doors. • Deadlocking latchbolt. • Latchbolt operated by lever inside, key in outside lever. • Outside lever always rigid. • Inside lever always active. | <p style="text-align: center;">4607LN (F109)</p>  <p>Entry Lock</p> <ul style="list-style-type: none"> • For entrance, general home or office doors. • Deadlocking latchbolt. • Either lever operates latchbolt (except when outside lever is locked from inside). • Pushing turn button in inside lever locks outside lever. (Automatically releases when inside lever is turned or key is rotated in locked outside lever.) • Outside lever may be retained in locked position by pushing and rotating turn button 90° clockwise to a horizontal position; not released until turn button is manually returned to the vertical position. • Latchbolt is operated by key in outside lever or by rotating inside lever. • Inside lever always active. | <p style="text-align: center;">4608LN (F84)</p>  <p>Classroom Lock</p> <ul style="list-style-type: none"> • For classroom or utility room doors. • Deadlocking latchbolt. • Either lever operates latchbolt (except when outside lever is locked by key). • Inside lever always active. • Key releases outside lever. |
| <p style="text-align: center;">4628LN (F111)</p>  <p>Communicating Passage Lock</p> <ul style="list-style-type: none"> • For twin communicating or exit doors where one side operation is required. • Also when space is limited between door and switch panel. • Deadlocking latchbolt. • One lever operation. • Blank rose. • Should be used only where rooms have more than one entrance. | <p style="text-align: center;">4655LN</p>  <p>Single Dummy Trim</p> <ul style="list-style-type: none"> • For non-operational levers used for decorative trim. • Rigid lever. | |

Cylinders/Keying



| Illustration | Type | Model Number | Number of Pins |
|---|-----------------------|--------------|----------------|
|  | Key-in-Lever Cylinder | 1806 | 6 |

Large format interchangeable core not available.

Keying:

All cylinders furnished standard 6-pin, keyed random in Yale® PARA keyway, pinned to Yale .019" specification. Each cylinder furnished with two nickel silver keys. Optional Yale keyways available upon request, extended lead times may apply.

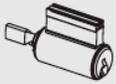
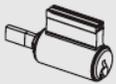
Options:

Cylinders available 0-bitted, keyed alike, master keyed or construction master keyed upon request. Cylinders provided in 605, 626 and BSP finishes only.

Levers Accepting Small Format Interchangeable Cores

| Illustration | Cylinder Type | Prefix | Ordering Example |
|---|--|--|-------------------|
|  | SFIC (Accepts all Small Format Interchangeable Cores) 6- or 7-pin. | B (i.e. B-AU, B-MO, B-PB, B-TB, B-UB) | B-PB-4607LN x 626 |

Other Manufacturers Keyway Cylinders/Cores

| Illustration | Type | Model Number | Number of Pins |
|---|---|--------------|---------------------|
|  | Best® Keyway Core. Available keyed random, master keyed or uncombined. Specify keyway A, B, C, D, E, F, G, H, J, K, L or M. | A600 | 6 or 7 (Specify) |
|  | Schlage® C Keyway Cylinder. Available 0-bitted or keyed random. | 2806 x C | 6 |
|  | Corbin Russwin L4 Keyway Cylinder. Available keyed random. | 3806 x L4 | 6 |
| | Corbin 60 Keyway Cylinder. Available keyed random. | 3806 x 60 | 6 |
| | Russwin D1 Keyway Cylinder. Available keyed random. | 3806 x D1 | 6 |
| | Sargent® LA Keyway Cylinder. Available keyed random. | 3806 x LA | 6 |
| | Schlage® E Keyway Cylinder. Available keyed random. | 3806 x E | 6 |

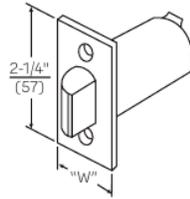
Note: 2806 and 3806 cylinders are supplied with applicable tailpieces that are needed to operate 4600LN locksets. These cylinders are not ANSI/BHMA certified. Small format cores and cylinders with other manufacturer keyways are supplied in 605 or 626 finish only.

Latchbolts



Plain Latchbolts

Model No. MCP234 supplied standard with all 4600LN series locksets without locking function. Model No. MCP234 latchbolt has a 2-1/4" x 1-1/8" front with a 2-3/4" backset and a 1/2" bolt throw. Optional latchbolts available to special order.

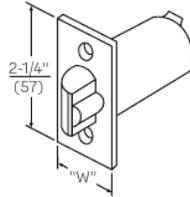


| Model Number | Front | Backset | Throw | "W" Front Width | Latch Diameter* |
|--------------|--------|---------------|-------------|-----------------|-----------------|
| MCP238 | Square | 2-3/8" (60mm) | 1/2" (13mm) | 1" (25mm) | 7/8" (22mm) |
| MCP238R | Round | 2-3/8" (60mm) | 1/2" (13mm) | 1" (25mm) | 7/8" (22mm) |
| MCP234 | Square | 2-3/4" (70mm) | 1/2" (13mm) | 1-1/8" (29mm) | 7/8" (22mm) |

*1/8" sleeve (P/N 14-0378-9001) supplied with all latchbolts to accommodate 1" preps.

Deadlocking Latchbolts

Model No. MCD234 supplied standard with all 4600LN series locksets with locking function. Model No. MCD234 latchbolt has a 2-1/4" x 1-1/8" front with a 2-3/4" backset and a 1/2" bolt throw. Optional latchbolts available to special order.



| Model Number | Front | Backset | Throw | "W" Front Width | Latch Diameter* |
|--------------|--------|---------------|-------------|-----------------|-----------------|
| MCD238 | Square | 2-3/8" (60mm) | 1/2" (13mm) | 1" (25mm) | 7/8" (22mm) |
| MCD238R | Round | 2-3/8" (60mm) | 1/2" (13mm) | 1" (25mm) | 7/8" (22mm) |
| MCD234 | Square | 2-3/4" (70mm) | 1/2" (13mm) | 1-1/8" (29mm) | 7/8" (22mm) |

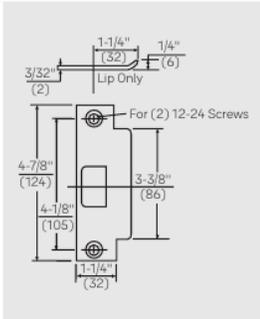
*1/8" sleeve (P/N 14-0378-9001) supplied with all latchbolts to accommodate 1" preps.

Note: Locksets ordered with 2-3/8" backset square or round latchbolts will automatically include the corresponding 70S or 71S full lip strike as standard. Order must specify if alternate strike required.

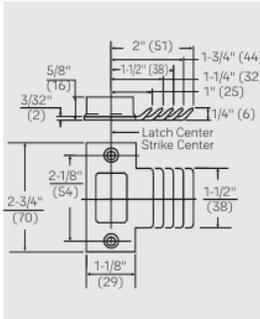
Strikes



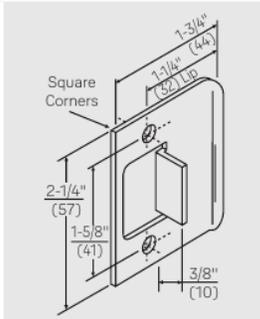
Yale® 4600LN locks are available with a variety of strike options. All strikes are located on the same vertical and horizontal center lines as the latchbolt. Some strikes are available in a variety of lip lengths to accommodate varying thickness of doors and frames. To determine the proper length of the lip, measure from the center line of the strike to the edge of the jamb, accounting for any interfering trim (i.e. wood molding) and then add 1/4" (6mm) for curved lip. All strikes are reversible. Strikes are fabricated of either brass, bronze or stainless steel, depending on the lockset trim finish. When ordering strikes separately, specify the finish required.



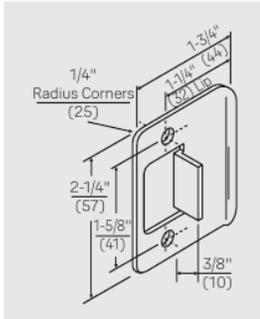
Model No. 497 ANSI Strike (Standard)
For door and frames with ANSI/BHMA A156.115 preparations. 4-7/8" x 1-1/4" x 1-1/4" (124mm x 32mm x 32mm) lip to center supplied standard for lever. 1-1/8", 1-1/2", and 1-3/4" lip lengths available by special order. Available with optional 202 Strike Box. Specify 497 x 202.



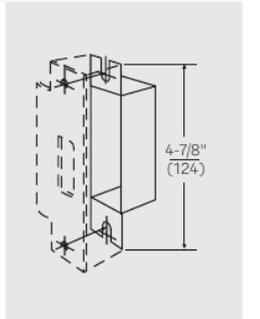
Model No. 371 T-Strike (Optional)
2-3/4" x 1-1/8" x 1-1/4" (70mm x 29mm x 32mm) lip to center supplied standard for knob. 1", 1-1/2", 1-3/4" and 2" curved lip lengths available by special order. Wrought strike box supplied.



Model No. 70S Full Lip Strike (Optional)
2-1/4" x 1-3/4" x 1-1/4" (57mm x 44mm x 32mm) lip to center with full lip anti-rattle tab.



Model No. 71S Full Lip Strike (Optional)
1/4" radius. Similar in dimensions and function to the 70S Strike but with radius corners for easy mortising by power tools. Anti-rattle tab.



Model No. 202 Strike Box
Available to special order. Specify 497 x 202.

Attaching Screws

For Model Nos. 371, 70S, and 71S

#8-32 x 3/4" (19mm) Phillips flat head combination wood and machine screws.

For Model No. 497

#12-24 x 1" (25mm) Phillips flat head combination wood and machine screws.





Trusted every day

Phone

1-855-557-5078

Customer Service Email

customerservice.yale@assaabloy.com

Technical Product Support Email

techsupport.yale@assaabloy.com

Order Entry Email

orders.yaleus@assaabloy.com

Fax

1-800-338-0965

Website

www.yalecommercial.com

Contact Us

U.S.A.

Yale Locks & Hardware

Address: 225 Episcopal Road

Berlin, CT 06037-4004

Tel: 1-800-438-1951

Fax: 1-800-338-0965

yalecommercial.com

Canada:

ASSA ABLOY Door Security Solutions Canada

Address: 160 Four Valley Drive

Vaughan, Ontario L4K 4T9

Tel: 1-800-461-3007

Fax: 1-800-461-8989

assaabloydss.ca

International:

ASSA ABLOY Americas International

Tel: 1-905-821-7775

Fax: 1-905-821-1429

assaabloyai.com

THE YALE BRAND, with its unparalleled global reach and range of products, reassures more people in more countries than any other consumer locking solution.

THE ASSA ABLOY GROUP is the world's leading manufacturer and supplier of locking solutions, dedicated to satisfying end-user needs for security, safety and convenience.

Yale Commercial is a business associated with ASSA ABLOY Access and Egress Hardware Group, Inc., an ASSA ABLOY Group company. Copyright © 2010-2023, ASSA ABLOY Access and Egress Hardware Group, Inc. All rights reserved. Reproduction in whole or in part without the express written permission of ASSA ABLOY Access and Egress Hardware Group, Inc. is prohibited. Patent pending and/or patent www.assaabloydss.com/patents.

Standard Perimeter Gasketing

Manufacturer: Assa Abloy - Rockwood Hardware
Style/Series: 303 Pk Ms

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Attributes

Standard Perimeter Gasketing

Item Type: 303APK 36" x 84"

DIMENSIONS

Width: 7/8" (22.2 mm)

Length: Up to 120"

Height: 1/4" (6.4 mm)

Weight: Estimated per foot: 0.07 lbs

MATERIAL / FINISH

Finish: A - Mill Finish Aluminum Aluminum with Gray PemkoPrene insert

Material Composition: 6063-T6 Aluminum Alloy and Temper Retainer

PERFORMANCE

Best Practices: ANSI R3G164 ANSI/BHMA A156.22 - Door Gasketing and Edge Seal Systems

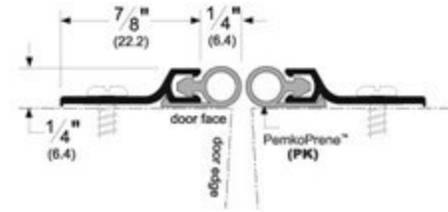
Fire/Smoke Rating: Tested to UL 1784 and meets the requirements of NFPA 105-2013 for smoke leakage in an opening; allows no more than 3.0 cfm per square foot at 0.10" water column (about 75 Pa).

Tested to UL10B Standard Fire Tests and UL10C Positive Pressure Fire Tests of Door Assemblies

MISCELLANEOUS

Lead Time: 4 working days (or less)

Warranty: 5 Years from purchase date



Architectural Door Accessories

ASSA ABLOY

Pemko Product Reference Tech-Spec

The global leader in
door opening solutions

303_PK_(PG)

Perimeter Gasketing

Example: 303 | D | PK | 3684
Profile# Finish Silicone Length

TYPE: Standard Perimeter Gasketing

MATERIAL: 6063-T6 Aluminum Alloy and Temper Retainer

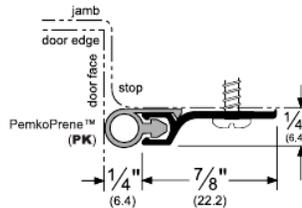
FINISH: A (Mill Finish), D (Dark Anodized), BDG (Bright Dip Gold), C (Clear Anodized)
PW (Painted White), SN (Satin Nickel Anodized)

LENGTHS: Up to 120"

WIDTH: 7/8" (22.2 mm)

HEIGHT: 1/4" (6.4 mm)

WEIGHT: Estimated per foot: 0.07 lbs



Product Test Ratings:



See Product Testing
section for more
information.

ANSI NUMBER: R3G164

LEAD TIME: 4 working days (or less)

AVAILABLE: Shipped from Pemko's Memphis, Ventura, Vancouver and Toronto locations

WARRANTY: 5 Years from purchase date

CROSS REFERENCE: N/A

INSTRUCTIONS, CAD DRAWINGS, PROFILE DRAWINGS and CUT SHEET

Available upon request and on website

PRODUCT TESTING:

- **Air Infiltration Tested** – Tested to ASTM E-283-04 (2012) for low air leakage allowance; allows no more than 0.3 cfm per square foot at 1.57 psf.
- **Smoke Tested** – Tested to UL 1784 and meets the requirements of NFPA 105-2013 for smoke leakage in an opening; allows no more than 3.0 cfm per square foot at 0.10" water column (about 75 Pa).
- **Fire Rated** – Tested to UL10B Standard Fire Tests and UL10C Positive Pressure Fire Tests of Door Assemblies
- **BHMA Certified** – Tested for performance with regards to the requirements in:
 - ANSI/BHMA A156.22 – Door Gasketing and Edge Seal Systems

MATERIAL SAFETY / FIRE HAZARDS

Per OSHA Regulations (Standards – 29 CFR) this Pemko item is considered an “article” as described in section 1910.1200 paragraph (c), meaning that it is a manufactured item other than a fluid and is not a hazard. To help our customers we are providing additional information in this section to cover relevant topics found on Safety Data Sheets (SDS) but not found elsewhere in this document.

FIRE HAZARD:

Aluminum alloy is a non-combustible material. Solid aluminum does not present a fire hazard.

FIRST AID MEASURES

Under normal conditions this item presents no small parts and so this item cannot be inhaled or swallowed and has no adverse reaction when coming in contact with skin. Observe good industrial hygiene after installation.

Note to physician: treat symptomatically and supportively

FIREFIGHTING MEASURES

As in any fire, prevent human exposure to fire, smoke, fumes, or products of combustion. Evacuate non-essential personnel from the fire area. Firefighters should wear face mask with self-contained breathing apparatus (SCBA) and impervious protective clothing. In case of aluminum fire, use class D dry powder to extinguish. DO NOT USE water or halogenated extinguishing media.

- Hazardous combustion products: none.

SPILL PROCEDURES

Sweep up any off-cuts from product and store in a suitable container for disposal

HANDLING, STORAGE, AND DISPOSAL

There are no specific handling instructions. Always store at room temperature and keep away from heat sources. When disposing, if possible, recycle the item and its packaging. Otherwise disposal should be in accordance with local, state, or federal legislation. Bury in an authorized landfill site or incinerate under approved controlled conditions.

EFFECTS OF EXPOSURE

There are no effects under normal conditions of use. Observe good industrial hygiene.

TOXICITY

There is no toxicity hazard under normal conditions of use

HEALTH HAZARD

This product may contain hazardous ingredients; harmful effects are unlikely under normal conditions.

ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience

ASSA ABLOY

CARE AND MAINTENANCE

CLEANING

Pemko's aluminum products and solid gasket products can be cleaned with a mild soap with warm water. A clean non-abrasive cloth should be used to clean the surface of these products. For removing grease, sealant, or other minimal adhesives a mild solvent such as mineral spirits may be used; then clean with mild soap mixed with warm water. To dry, either allow to air dry or wipe dry with a chamois, squeegee, or lint-free cloth.

For sponge gasket and weatherstrip products, wipe with a damp cloth. Do not use mineral spirits or other chemical as this may cause the plastic to "melt" or deteriorate. To dry, either allow to air dry or wipe dry with a chamois, squeegee, or lint-free cloth.

The use of strong solvents or cleaner concentrations may cause damage to the finish surface and isn't recommended.

MAINTENANCE

Pemko products are generally low-maintenance and require nothing more than general cleaning. Should anything outside of "general cleaning" arise, please consult Pemko Customer Service.

If you have any questions, or if you have a situation outside this scope, please contact Pemko Customer Service.

www.pemko.com

| | | | |
|-----------------|-----------------|------------------|-----------------|
| MEMPHIS, TN USA | VENTURA, CA USA | VANCOUVER, BC CA | TORONTO, ON CA |
| P: 800 824-3018 | P: 800 283-9988 | P: 877 535-7888 | P: 877 535-7888 |
| F: 800 243-3656 | F: 800 283-4050 | F: 877 535-7444 | F: 877 535-7444 |

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303_PK (PG)_TS
Revised 06.09.17
Page 3 of 3

Bottom door sweep

Manufacturer: Assa Abloy - Rockwood Hardware
Style/Series: 315CN

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com

Secondary

Chris Hobbs
Email: chris.hobbs@assaabloy.com

Attributes

Bottom door sweep

Item Type: Door sweep

DIMENSIONS

Height: 1-11/16"

Thickness: 1/4" with 7/16" neoprene insert

MATERIAL / FINISH

Color: Clear Anodized Aluminum

Finish: CN

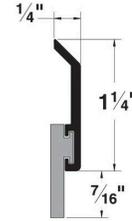
Material Composition: Aluminum alloy and temper retainer with neoprene insert

PERFORMANCE

Accessibility Compliance : ADA and ANSI A117.1

Fire/Smoke Rating: UL10C Positive Pressure Fire Tests of Door Assemblies

Quality Standards: ANSI/BHMA A156.22 American National Standard for Gasketing



Architectural Door Accessories

Pemko Door Bottoms: Door Bottom Sweeps

315_N

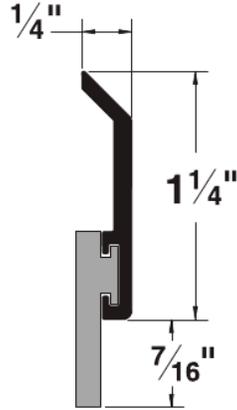


AVAILABLE FINISHES: B, C, D, G, PW, SN

WIDTH: 1/4" (6.4 mm)

PROFILE HEIGHT: 1-1/4" (31.8 mm)

TOTAL HEIGHT WITH INSERT: 1-11/16" (42.9 mm)



- B (Mill Finish Extruded Bronze [Brass])
- C (Clear Anodized Aluminum)
- D (Dark Bronze Anodized Aluminum)
- G (Gold Anodized Aluminum)
- PW (Painted White Aluminum)
- SN (Satin Nickel Anodized Aluminum)

| |
|---------------|
| TITLE: |
| PREPARED FOR: |
| PREPARED BY: |
| DATE: |
| COMMENTS: |

DR - Doors

DOORS

Flush, fire and/or temperature-rise-r...

Manufacturer: Republic Doors and Frames

Style/Series: DL-Series

Sales Rep

Primary

Nick Batrouney

Email: nickb@discoverParagon.com

Office Phone: 770.795.9564 x 310

Attributes

Flush, fire and/or temperature-rise-rated

Type: Heavy-duty full flush door, interior

DIMENSIONS

Thickness: 1-3/4"

Dimension Explanation: Refer to the Design Guideline Drawings

MATERIAL/FINISH

Material Composition: 18-gauge cold-rolled steel

Finish: Manufacturer Standard Factory-primed, field-painted (See

Project-specific Mark # for paint)

PERFORMANCE

Accessibility Compliance : ADA and ANSI A117.1

Accessories: Light frames as standard with manufacturer.

Acoustical Performance: STC 38 minimum

Best Practices: Recycled content

Compressive Strength: NA

Fire/Smoke Rating: NFPA 80 "Standard for Fire Doors, Fire Windows." Actual rating to be determined by the Architect based on location and code requirements.

Quality Standards: ASNS/SDI A250.8 Recommended Specifications for Standard Steel Doors and Frames"

Structural Performance: ANSI/SDI Level 2, Performance Level B (Heavy-Duty)

Water Sense: NA

MISCELLANEOUS

Warranty: Life of building

CUSTOM FIELDS

Fire Rating: NFPA 80 "Standard for Fire Doors, Fire Windows." Actual rating to be determined by the Architect based on location and code requirements.

Glazing: Safety glass complying with ANSI Z97.1.

Hardware: Refer to Door Hardware Schedule & Specifications



Acoustical: NA
Door Type: NA
Quality Standards: ASNS/SDI A250.8 Recommended Specifications for Standard Steel Doors and Frames"
Core: Semi-rigid fiberglass / mineral wool
Louver: Manufacturer's standard fire-rated automatic louvers as required. Refer to Mechanical Drawings for locations.

Notes

Product Data Sheet: <https://tinyurl.com/r8amndz6>

Special Instructions

Clearances: 1/8" at jambs and heads; 3/4" at bottom; 1/4" at meeting edges of pairs of doors.

DOORS

Flush, fire and/or temperature-rise-r...

Manufacturer: Steelcraft
Style/Series: L-Series

Sales Rep

Primary

Nick Batrouney
Email: nickb@discoverParagon.com
Office Phone: 770.795.9564 x 310

Attributes

Flush, fire and/or temperature-rise-rated

Type: Heavy-duty full flush door, interior

DIMENSIONS

Thickness: 1-3/4"
Dimension Explanation: Refer to the Design Guideline Drawings

MATERIAL/FINISH

Material Composition: 18-gauge cold-rolled steel
Finish: Manufacturer Standard Factory-primed, field-painted (See Project-specific Mark # for paint)

PERFORMANCE

Accessibility Compliance : ADA and ANSI A117.1
Accessories: Light frames as standard with manufacturer.
Acoustical Performance: STC 38 minimum
Best Practices: Recycled content
Compressive Strength: NA
Fire/Smoke Rating: NFPA 80 "Standard for Fire Doors, Fire Windows." Actual rating to be determined by the Architect based on location and code requirements.
Quality Standards: ASNS/SDI A250.8 Recommended Specifications for Standard Steel Doors and Frames"
Structural Performance: ANSI/SDI Level 2, Performance Level B (Heavy-Duty)
Water Sense: NA

MISCELLANEOUS

Warranty: Life of building

CUSTOM FIELDS

Fire Rating: NFPA 80 "Standard for Fire Doors, Fire Windows." Actual rating to be determined by the Architect based on location and code requirements.
Glazing: Safety glass complying with ANSI Z97.1.
Hardware: Refer to Door Hardware Schedule & Specifications



Acoustical: NA
Door Type: NA
Quality Standards: ASNS/SDI A250.8 Recommended Specifications for Standard Steel Doors and Frames"
Core: Semi-rigid fiberglass / mineral wool
Louver: Manufacturer's standard fire-rated automatic louversas required. Refer to Mechanical Drawings for locations.

Notes

Product Data Sheet: <https://tinyurl.com/2p867xvu>

Special Instructions

Clearances: 1/8" at jambs and heads; 3/4" at bottom; 1/4" at meeting edges of pairs of doors.

EAL - Louvers / Grilles

LOUVERS / GRILLES

Extruded aluminum architectural louver

Manufacturer: Friedrich Air Conditioning Co.
Style/Series: Refer to HVAC Design Guideline Standards

Sales Rep

Primary

Customer Service/Sales
Email: No.Email.298
Office Phone: (800) 541-6645

Attributes

Extruded aluminum architectural louver

Type: Aluminum Louver

DIMENSIONS

Dimension Explanation: Refer to HVAC Design Guideline Standards

MATERIAL/FINISH

Material Composition: Aluminum
Color: To match adjacent exterior finish
Finish: Factory painted

MISCELLANEOUS

Lead Time: To be verified
Warranty: To be verified

CUSTOM FIELDS

Product: NA
Thickness: NA
Pattern: NA
Eco-Feature(s) *as per manufacturer: NA
Content: Aluminum

Notes

Attaches to manufacturer's wall plenum



ECT - High-Performance Coatings

HIGH-PERFORMANCE COATINGS

Waterborne acrylic epoxy coating for ...

Manufacturer: Sherwin Williams Company
Style/Series: Water-Based Acrolon 100 Polyurethane Series 65 over
Macropoxy 646-100 B58 SeriesPrimer.

Sales Rep

Primary

Matt Wessel

Email: matthew.m.wessel@sherwin.com

Office Phone: (216) 515-7925

Attributes

Waterborne acrylic epoxy coating for exterior hollow metal doors, frames, and handrails

Type: Waterborne acrylic epoxy

DIMENSIONS

Dimension Explanation: Primer: 2 mils DFT/ Finish Coat: 3 mils DFT

MATERIAL/FINISH

Material Composition: Epoxy resin

Color: Color to match exterior window finish

Finish: Semi-gloss

PERFORMANCE

Best Practices: Low-emitting materials

Quality Standards: Master Painters Institute "MPI Architectural
Painting Specification Manual"

Notes

Special Instructions

Surface preparation for shop priming: SSPC-S 6 Commercial Blast.

Surface preparation for field application: SSPC-SP 3 Power Tool
Cleaning.

Prior to painting factory-primed doors and frames, sand or abrade
existing primer, apply tie coat equal to Great Lakes Laboratories
"Clean N' Etch."

IMAGE NOT
AVAILABLE

HIGH-PERFORMANCE COATINGS

Waterborne acrylic epoxy coating for ...

Manufacturer: Tnemec Company
Style/Series: H.B. Tneme-Tufcoat Series 113 over Series 66 HB
Epoxoline Primer.

Attributes

Waterborne acrylic epoxy coating for exterior hollow metal doors, frames, and handrails

Type: Waterborne acrylic epoxy

DIMENSIONS

Dimension Explanation: Primer: 2 mils DFT/ Finish Coat: 3 mils DFT

MATERIAL/FINISH

Material Composition: Epoxy resin
Color: Color to match exterior window finish
Finish: Semi-gloss

PERFORMANCE

Best Practices: Low-emitting materials
Quality Standards: Master Painters Institute "MPI Architectural
Painting Specification Manual"

Notes

Special Instructions

Surface preparation for shop priming: SSPC-S 6 Commercial Blast.
Surface preparation for field application: SSPC-SP 3 Power Tool
Cleaning.
Prior to painting factory-primed doors and frames, sand or abrade
existing primer, apply tie coat equal to Great Lakes Laboratories
"Clean N' Etch."

IMAGE NOT
AVAILABLE

HIGH-PERFORMANCE COATINGS

Exterior Ferrous Metal Acrylic Gloss ...

Manufacturer: Sherwin Williams

Style/Series: Pro Industrial Acrylic-Gloss (B66-600 Series)

Sales Rep

Primary

Matt Wessel

Email: matthew.m.wessel@sherwin.com

Office Phone: (216) 515-7925

Attributes

Exterior Ferrous Metal Acrylic Gloss Enamel Paint Coating for exterior hollow metal doors, frames, and handrails

Type: Exterior Metal Paint

MATERIAL/FINISH

Material Composition: Ambient cured, single component 100% acrylic coating

Color: Color to match exterior window finish

Finish: Gloss

PERFORMANCE

Best Practices: Formulated without lead, mercury or chromates.

Low-VOC less than 50 grams per litre; 0.42 lbs. per gallon

MISCELLANEOUS

Lead Time: Standard lead times are 3-5 days from receipt of purchase order. Lead time should be confirmed by the manufacturer.

Notes

Primer, undercoat, block filler, finish coat(s) are to be compatible and of the same manufacturer. All primers and undercoats are to be tinted to 50% lighter than the selected and approved finish coat color. All finish coats are to be tinted 25% darker than the primer coat until approved finish coat color is achieved. When the color schedule calls for the use of DEEP TONES (interior and/or exterior), it is the responsibility of the painting contractor to utilize the appropriate Deep Base Primers as manufactured by the painting company for use on the substrate for which they are intended.

Special Instructions

Steel:

1 coat Pro Industrial Pro-Cryl Primer or Pro Industrial DTM Primer-Finish or Kem Bonds HS or Zinc Clad Primer

IMAGE NOT
AVAILABLE

1-2 coats Pro Industrial Acrylic

HIGH-PERFORMANCE COATINGS

Waterborne acrylic epoxy coating for ...

Manufacturer: Tnemec Company
Style/Series: H.B. Tnemec-Tufcoat Series 113 over Primer Series 901K-97 Tnemec-Zinc.

Attributes

Waterborne acrylic epoxy coating for exterior metal fabrications (bollards).

Type: Waterborne acrylic epoxy

MATERIAL/FINISH

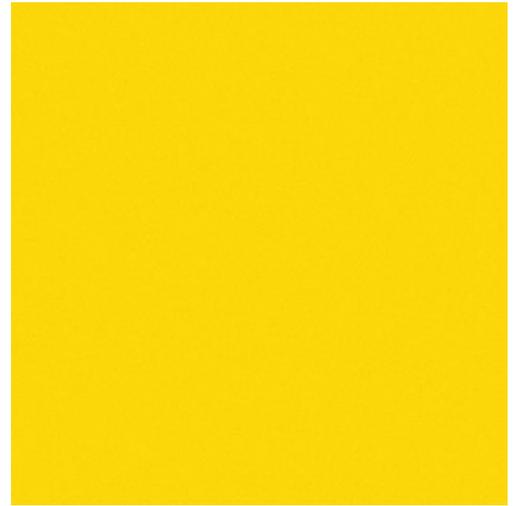
Material Composition: Epoxy resin
Color: Safety yellow
Finish: Semi-gloss

PERFORMANCE

Best Practices: Low-emitting materials
Quality Standards: Master Painters Institute "MPI Architectural Painting Specification Manual"

Notes

Surface preparation for shop priming: SSPC-S 6 Commercial Blast.
Surface preparation for field application: SSPC-SP 3 Power Tool Cleaning.



EEF - Exterior Insulation Finishing System (EIFS)

EXTERIOR INSULATION FINISHING SYSTEM (EIFS)

Non-structural, insulated composite c...

Manufacturer: Dryvit Systems, Inc.

Style/Series: Outsulation Plus MD EIFS with drainage

Sales Rep

Primary

Bob Dazel

Email: bob.dazel@dryvit.com

Office Phone: (734) 790-6765

Attributes

Non-structural, insulated composite cladding system

Type: Water-drainage, hydrophobic

MATERIAL/FINISH

Material Composition: Silicone-based finish coat, polymermodified basecoat, polymer reinforcing mesh, polystyrene insulation board.

Color: To Match Control James Hardie Arctic White - Smooth

Finish: HDP (Hydrophobic)

PERFORMANCE

Accessories: Per manufacturer. Refer to Special Instructions. 3/4" PB Control Joint; 1-1/4" Reveal Expansion Joint.

Best Practices: ASHRAE 90.1 compliance for continuous insulation.

Fire/Smoke Rating: NFPA 285: Passes

Quality Standards: ANSI/EIMA American National Standard for Exterior Insulation & Finish Systems (EIFS)

Thermal Performance: R-10 continuous insulation

MISCELLANEOUS

Warranty: Manufacturer System Warranty: 10 years.

Standard Color Warranty: 10 years.

Installer Warranty: 3 years.

CUSTOM FIELDS

Eco-Feature(s) *as per manufacturer: NA

Texture: Finesse HDP

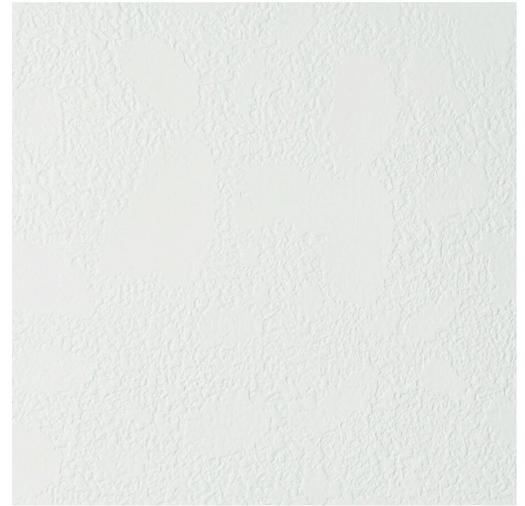
Notes

Acceptable Manufacturers:

Senergy div. of BASF Wall Systems; Customer Service; 800-221-9255;

<https://www.basf.com/us/en/products/General-Business-Topics/senergy-wall-systems-home/senergy-stucco-eifs-ci-wall-systems.html>

Dryvit Systems; Bob Dazel; bob.dazel@dryvit.com; (734) 276-0404; www.dryvit.com



Master Wall Incorporated; Grant Smithwick; 800-755-0825;
<https://masterwall.com/>
Parex USA; Randy Campbell; randy.campbell@parexusa.com; (877)
547-8822; www.parexusa.com
Sto Corporation; Customer Service;
888-786-3437; <https://www.stocorp.com/>

Special Instructions

1. EIFS Manufacturer's Air/Water-Resistive Barrier Coating and compatible wall penetration Flashing Treatment to be used throughout and behind all cladding material areas.
2. Provide EIFS High Impact Mesh Assembly for lower 8'-0" of wall areas at grade. Provide Ultra-High Impact Mesh Assembly for High Impact Areas.
3. Coordinate for minimum exterior continuous insulation thickness / R-Value requirements in accordance with adopted energy code requirements for all cladding areas.

EXTERIOR INSULATION FINISHING SYSTEM (EIFS)

Non-structural, insulated composite c...

Manufacturer: Dryvit Systems, Inc.

Style/Series: Outsulation Plus MD EIFS with drainage

Sales Rep

Primary

Bob Dazel

Email: bob.dazel@dryvit.com

Office Phone: (734) 790-6765

Attributes

Non-structural, insulated composite cladding system

Type: Water-drainage, hydrophobic

MATERIAL/FINISH

Material Composition: Silicone-based finish coat, polymermodified basecoat, polymer reinforcing mesh, polystyrene insulation board.

Color: To Match Control James Hardie Cobblestone - Smooth

Finish: HDP (Hydrophobic)

PERFORMANCE

Accessories: Per manufacturer. Refer to Special Instructions. 3/4" PB Control Joint; 1-1/4" Reveal Expansion Joint.

Best Practices: ASHRAE 90.1 compliance for continuous insulation.

Fire/Smoke Rating: NFPA 285: Passes

Quality Standards: ANSI/EIMA American National Standard for Exterior Insulation & Finish Systems (EIFS)

Thermal Performance: R-10 continuous insulation

MISCELLANEOUS

Warranty: Manufacturer System Warranty: 10 years.

Standard Color Warranty: 10 years.

Installer Warranty: 3 years.

CUSTOM FIELDS

Eco-Feature(s) *as per manufacturer: NA

Texture: Finesse HDP

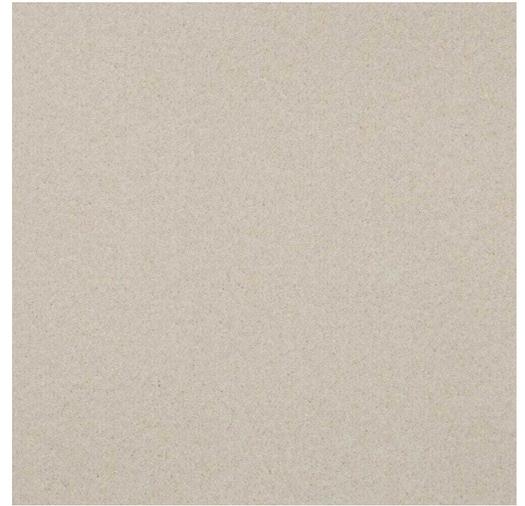
Notes

Acceptable Manufacturers:

Senergy div. of BASF Wall Systems; Customer Service; 800-221-9255;

<https://www.basf.com/us/en/products/General-Business-Topics/senergy-wall-systems-home/senergy-stucco-eifs-ci-wall-systems.html>

Dryvit Systems; Bob Dazel; bob.dazel@dryvit.com; (734) 276-0404; www.dryvit.com



Master Wall Incorporated; Grant Smithwick; 800-755-0825;
<https://masterwall.com/>
Parex USA; Randy Campbell; randy.campbell@parexusa.com; (877)
547-8822; www.parexusa.com
Sto Corporation; Customer Service;
888-786-3437; <https://www.stocorp.com/>

Special Instructions

1. EIFS Manufacturer's Air/Water-Resistive Barrier Coating and compatible wall penetration Flashing Treatment to be used throughout and behind all cladding material areas.
2. Provide EIFS High Impact Mesh Assembly for lower 8'-0" of wall areas at grade. Provide Ultra-High Impact Mesh Assembly for High Impact Areas.
3. Coordinate for minimum exterior continuous insulation thickness / R-Value requirements in accordance with adopted energy code requirements for all cladding areas.

EXTERIOR INSULATION FINISHING SYSTEM (EIFS)

Non-structural, insulated composite c...

Manufacturer: Dryvit Systems, Inc.

Style/Series: Outsulation Plus MD EIFS with drainage

Sales Rep

Primary

Bob Dazel

Email: bob.dazel@dryvit.com

Office Phone: (734) 790-6765

Attributes

Non-structural, insulated composite cladding system

Type: Water-drainage, hydrophobic

MATERIAL/FINISH

Material Composition: Silicone-based finish coat, polymermodified basecoat, polymer reinforcing mesh, polystyrene insulation board.

Color: To Match Control James Hardie Arctic White - Smooth

Finish: HDP (Hydrophobic)

PERFORMANCE

Accessories: Per manufacturer. Refer to Special Instructions. 3/4" PB Control Joint; 1-1/4" Reveal Expansion Joint.

Best Practices: ASHRAE 90.1 compliance for continuous insulation.

Fire/Smoke Rating: NFPA 285: Passes

Quality Standards: ANSI/EIMA American National Standard for Exterior Insulation & Finish Systems (EIFS)

Thermal Performance: R-10 continuous insulation

MISCELLANEOUS

Warranty: Manufacturer System Warranty: 10 years.

Standard Color Warranty: 10 years.

Installer Warranty: 3 years.

CUSTOM FIELDS

Eco-Feature(s) *as per manufacturer: NA

Texture: Finesse HDP

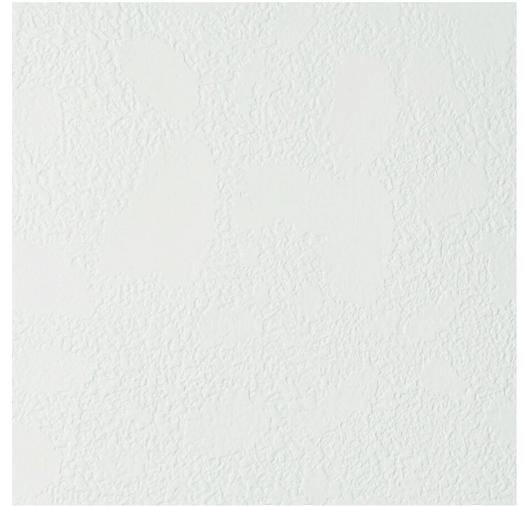
Notes

Acceptable Manufacturers:

Senergy div. of BASF Wall Systems; Customer Service; 800-221-9255;

<https://www.basf.com/us/en/products/General-Business-Topics/senergy-wall-systems-home/senergy-stucco-eifs-ci-wall-systems.html>

Dryvit Systems; Bob Dazel; bob.dazel@dryvit.com; (734) 276-0404; www.dryvit.com



Master Wall Incorporated; Grant Smithwick; 800-755-0825;
https://masterwall.com/
Parex USA; Randy Campbell; randy.campbell@parexusa.com; (877)
547-8822; www.parexusa.com
Sto Corporation; Customer Service;
888-786-3437; https://www.stocorp.com/

Special Instructions

1. EIFS Manufacturer's Air/Water-Resistive Barrier Coating and compatible wall penetration Flashing Treatment to be used throughout and behind all cladding material areas.
2. Provide EIFS High Impact Mesh Assembly for lower 8'-0" of wall areas at grade. Provide Ultra-High Impact Mesh Assembly for High Impact Areas.
3. Coordinate for minimum exterior continuous insulation thickness / R-Value requirements in accordance with adopted energy code requirements for all cladding areas.

EXTERIOR WALL PANEL

Fiber cement lap siding boards, panel...

Manufacturer: James Hardie Building Products, Inc.
Style/Series: HardiePlank Lap Siding

Sales Rep

Primary

Email: No.Email.415
Office Phone: 888-542-7343

Attributes

Fiber cement lap siding boards, panels, trim, fascia and accessories

Type: Fiber cement board siding

DIMENSIONS

Length: 12'
Height: 7-1/4"
Thickness: 5/16"

MATERIAL / FINISH

Color: Gray Slate
Finish: Smooth
Material Composition: Fiber cement panels manufactured from a pressed, stamped, and autoclaved mix of Portland cement, fly ash, silica, recycled rejects, and wood fiber bundles

PERFORMANCE

Fire/Smoke Rating: Surface Burning (ASTM E-84): Flame Spread: 0,
Smoke Developed: 5
Quality Standards: ASTM C1186, Type A, Grade II "Standard
Specification for Flat Non-Asbestos Fiber-Cement Sheets"
Structural Performance: Wet Flexural Strength: lower limit: 1015 psi
Thermal Performance: R = 0.48

MISCELLANEOUS

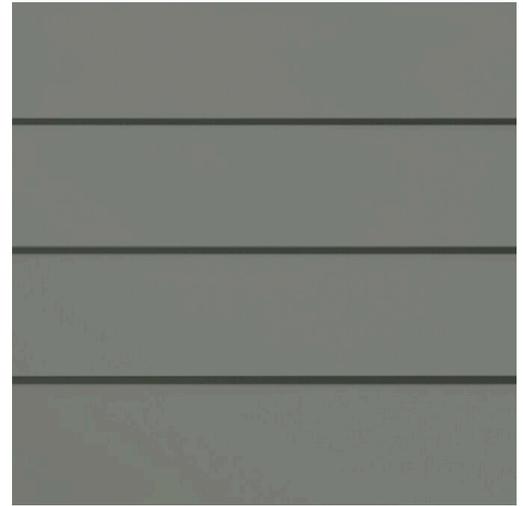
Lead Time: 10 weeks +
Warranty: 30 years
Eco-Features(s)* as per manufacturer: Recycled content

CUSTOM FIELDS

Texture/Luster: Smooth

Notes

Horizontal joints: 1-1/4" overlap.
Fasteners: Corrosion resistant, galvanized, or stainless steel fasteners.
Sealant: Elastomeric joint sealant complying with ASTM C920 Grade



NS,
Class 25 or higher or a Latex joint sealant complying with ASTM
C834.
Caulk, paint or prime all field cut edges.

Special Instructions

Refer to manufacturer's literature for products approved for use in
climate zone HZ5 or zone HZ10.
Factory-primed products must be painted within 180 days of
installation. 100% acrylic topcoats are recommended; do not use
stain, oil/alkyd base paint, or powder coating.

HardiePlank® Lap Siding Product Description

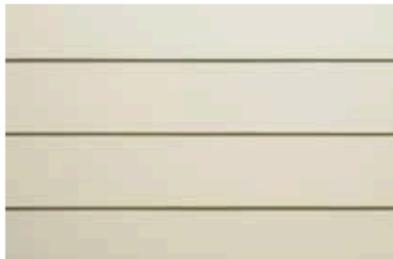
HardiePlank® lap siding is factory-primed fiber-cement lap siding available in a variety of styles and textures. Please see your local James Hardie® product dealer for product availability. HardiePlank lap siding comes in 12 ft. lengths. Nominal widths from 5 1/4 in. to 12 in. create a range of exposures from 4 in. to 10 3/4 in.

HardiePlank lap siding is also available with ColorPlus® Technology as one of James Hardie's prefinished products. ColorPlus® Technology is a factory applied, oven-baked finish available on a variety of James Hardie siding and trim products. See your local dealer for details and availability of products, colors, and accessories.

The HZ5® product line is right at home in climates with freezing temperatures, seasonal temperature variations, snow and ice. HZ5® boards are the result of our generational evolution of our time-tested products. We've evolved our substrate composition to be specifically designed to perform in conditions found in these climates. To ensure that its beauty matches its durability, we've engineered the surface for higher performance, giving it superior paint adhesion and moisture resistance. In addition, we've added a drip edge to the HardiePlank® HZ5® lap siding product to provide improved water management in conditions specific to HZ5® climates.



Select Cedarmill®



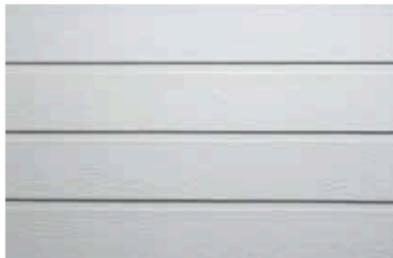
Smooth



Beaded Cedarmill®



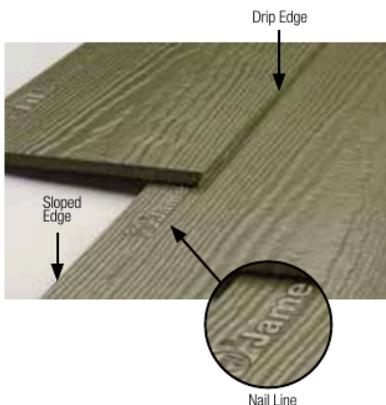
Beaded Smooth



Custom Colonial Roughsawn®



Custom Colonial Smooth®

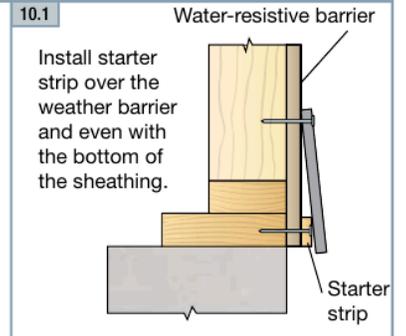


Installation of HardiePlank® Lap Siding

INSTALL A STARTER STRIP

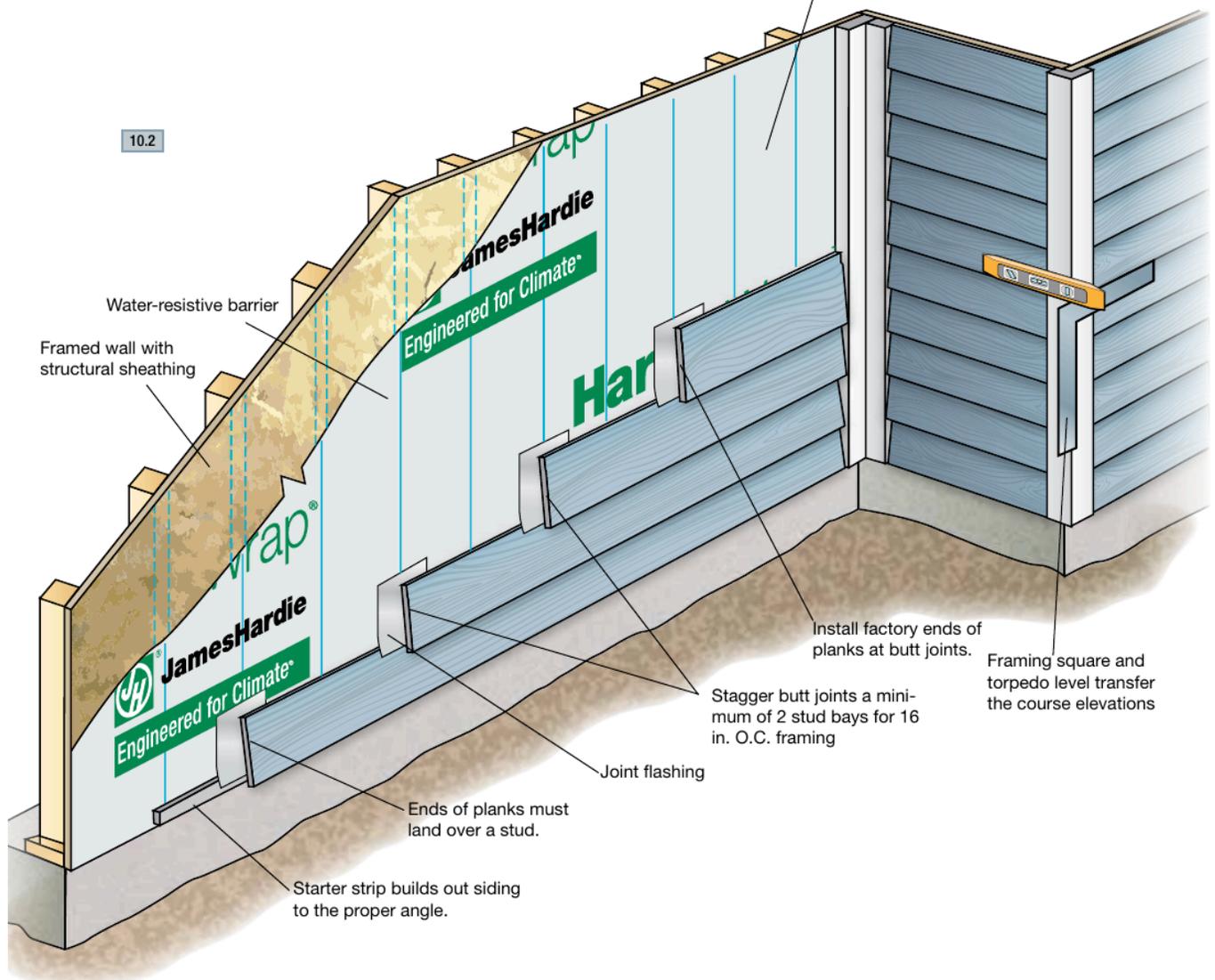
HardiePlank® lap siding requires a starter strip beneath the first course to set it on the proper angle and to create a proper drip edge at the bottom of the siding. Starter strips are easily made by ripping 1¼ in. pieces of HardiePlank siding from full or partial planks.

The bottom of the starter strip should be installed even with the bottom of the mudsill or the bottom edge of the sheathing. The strip must be installed over the water-resistive barrier, but occasional gaps should be left in the starter strip to allow any accumulated moisture behind the siding to drain away safely.



TIP: For accurate fastening, snap vertical chalk lines on the water-resistive barrier at the center of every stud location.

OVERVIEW OF HARDIEPLANK LAP SIDING



INSTALLING THE PLANKS

The first course of HardiePlank® siding is critical to the proper installation of the plank on the rest of the building. The first course should start at the lowest point of the house and within required clearances. Special attention should be made to ensure that it's straight and level. Attention should also be paid to staggering any butt joints in the planks so that the installation is attractive while making efficient use of material.

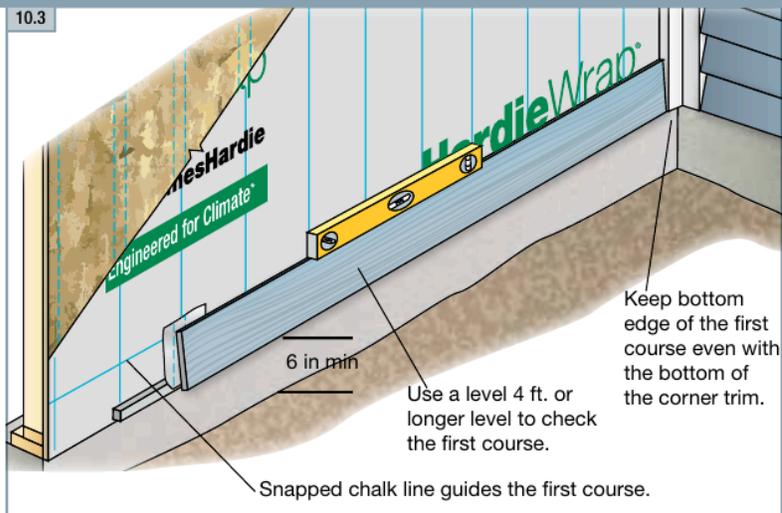
1. Use a level (4 ft. or longer) or chalked level line to be sure that the first course is level.

As installation proceeds up the wall, periodically check the level and straightness of the courses. When correcting for flatness over products such as exterior insulation, use drywall shims. It is good practice to snap a chalk line every 3 to 5 courses to keep the planks straight and level.

2. Position the bottom edge of the first course of siding a minimum $\frac{1}{4}$ in below the edge of the starter strip (maintain required clearances) and secure.

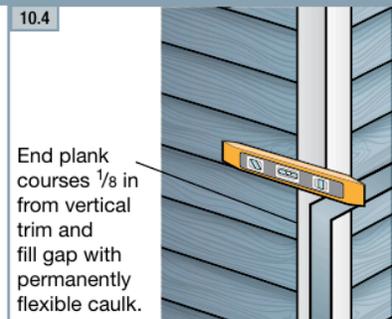
3. Run the siding to the HardieTrim® board leaving a $\frac{1}{8}$ in. gap between the siding and trim.

The bottom of the siding should be kept even with the bottom of the trim, or if desired, the trim may extend below the bottom of the siding. But the siding should never hang below the trim. ***When installing the first course make sure ground clearances are in accordance with James Hardie requirements and those of local codes.**



PLANK ALIGNMENT AT CORNERS

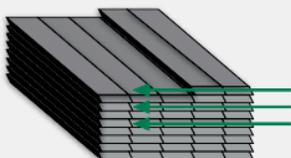
For the best looking installation, make sure that the heights of the plank courses match on both sides of a corner. Use a framing square, speed square or a level to match up the plank heights. Check every few courses to make sure proper heights are being maintained.



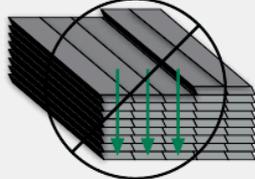
HANDLING

IMPORTANT: To prevent damage to the drip edge, extra care should be taken when removing planks from the pallet, while handling, and when installing with a lap gauge. Planks are interlocked together on the pallet, therefore they should be removed from the pallet horizontally (side to side) to allow planks to unlock themselves from one another.

Pull from across the stack



Do not go down the stack



TIP: When taking planks from the pallet installation, avoid repeating the texture pattern by working across the pallet. Two to four planks can be removed from a stack at one time. But then material should be taken from adjacent stacks, again working across the pallet. Texture repeat is typically a concern on large walls with few breaks such as windows or doors.

Installation of HardiePlank® Lap Siding (cont.)

BLIND NAILING (nailing through top of plank)

Blind nailing is recommended for installing any type of HardiePlank® lap siding including ColorPlus® siding. With blind nailing, each course covers the fasteners on the course below, which provides a better looking installation.

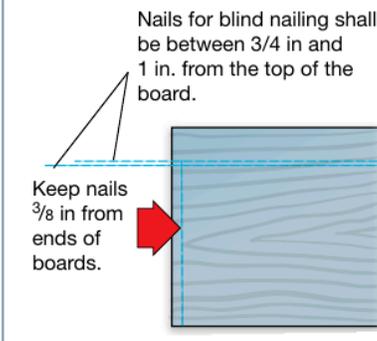
For blind nailing HardiePlank lap siding, James Hardie recommends driving fasteners 1 in. from the top edge of the plank. Additionally fasteners should be

placed no closer than 3/8 in from the ends of the plank.

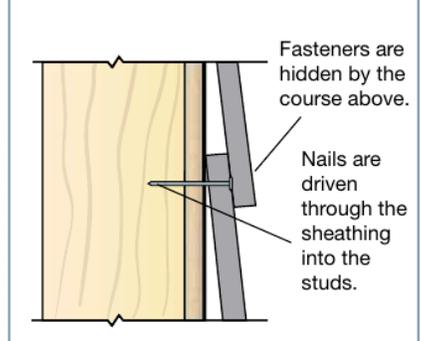
HardiePlank® HZ5® Lap Siding is manufactured with a nail line that should be used as a guide for proper nail placement when blind nailing. This nail line should not be used as a lap line.

Avoid placing fasteners near the top edge of the plank. This practice, called “high nailing”, may lead to loose planks, unwanted gaps or rattling. **Pin-backed corners may be done for aesthetic purposes only. Finish nails are recommended for pin-backs. Headed siding nails are allowed. Place pin-backs no closer than 1 in. from plank ends & 3/4 in. from plank edge into min. 3/8 in. wood structural panel. Pin-backs are not a substitute for blind or face nailing**

10.5 Blind nailing measurements



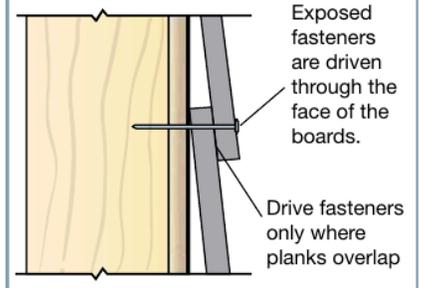
10.6 Blind nailing



FACE NAILING (nailing through the overlap at the bottom of the plank)

Although blind nailing is recommended by James Hardie, face nailing may be required for certain installations including: installations in high wind areas, fastening into OSB or equivalent sheathing without penetrating a stud, or when dictated by specific building codes. Refer to Appendix D for related code matters.

10.7 Face nailing



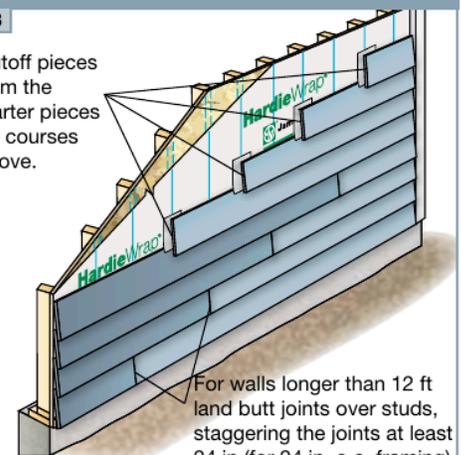
STAGGERING THE BUTT JOINTS

For walls longer than 12 ft, it is necessary to butt joint additional lengths of HardiePlank siding. These butt joints should be staggered to avoid noticeable patterns, which is determined by the placement of the first course. Butt joints between consecutive courses should be spaced apart by at least two stud bays for 16 in, o.c. framing or one bay for 24 in. o.c. framing.

While random placement of the planks is usually the most aesthetically pleasing, a progressive stagger pattern can make the job easier and faster without the pattern becoming too noticeable. With this strategy, the cut off piece for one course becomes the starter piece for a course above, making efficient use of materials and ensuring that all butt joints land on studs. The pattern can be modified for different stud placement.

10.8

Cutoff pieces form the starter pieces for courses above.



JOINT FLASHING

One or more of the following joint treatment options are required by code (as referenced 2009 IRC R703.10.2)

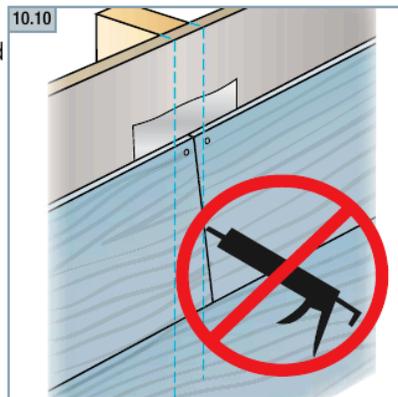
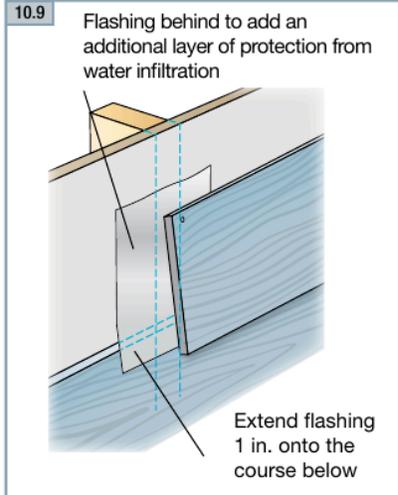
- A. Joint Flashing (James Hardie recommended)
- B. Caulking* (Caulking is not recommended for ColorPlus for aesthetic reasons as the Caulking and ColorPlus will weather differently. For the same reason, do not caulk nail heads on ColorPlus products.)
- C. "H" jointer cover

Flashing behind butt joints provides an extra level of protection against the entry of water at the joint. James Hardie recommends 6 in. wide flashing that overlaps the course below by 1 in. Some local building codes may require different size flashing.

Joint-flashing material must be durable, waterproof materials that do not react with cement products. Examples of suitable material include finished coil stock and code compliant water-resistive barriers. Other products may also be suitable.

TIP: Joint flashing can be quickly and easily made by cutting a 6 in. wide section off a roll of housewrap. Tape the roll tightly at the cut mark and cut the section off using a miter saw with a carbide blade. Individual sheets then can be cut to length with a utility knife.

TIP: Use light-colored joint flashing when using light-colored ColorPlus lap siding or other siding with a light-colored finish. Dark-color joint flashings should be used on siding with dark finishes.

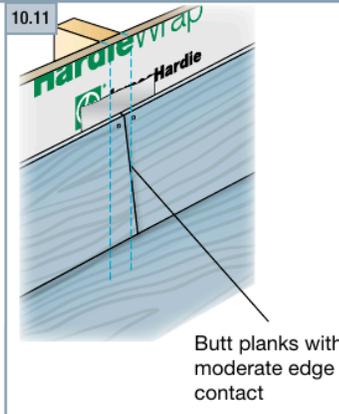


Caulking at HardiePlank lap siding butt joints is not recommended for ColorPlus for aesthetic reasons as the caulking and ColorPlus will weather differently. For the same reason, do not caulk exposed nail heads. Refer to the ColorPlus touch-up section for details

JOINT PLACEMENT AND TREATMENT

Butt joints in HardiePlank lap siding should always land on a stud. Butt joints between studs are not recommended and should be avoided. Whenever possible, factory-finished ends should be used at butt joints.

Place cut ends where the siding meets a corner, door, window trim, or other break in the wall where the joint is to be caulked. If cut ends are used in a butt joint between planks, James Hardie requires sealing cut ends for all products. For ColorPlus products, use the color-matched edge coater to seal the cut end.



COLORPLUS® TIP: When installing HardiePlank lap siding with ColorPlus Technology, position the plank in the immediate area where the plank is to be fastened. Do not place the plank on the course below and slide into position. Doing so may scuff or scratch the ColorPlus finish on the installed piece.

Installation of HardiePlank® Lap Siding (cont.)

CONTINUING THE INSTALLATION

Once the initial course of HardiePlank® siding is fastened to the wall, continue installing successive courses with full 12 ft. pieces (follow the stagger pattern for longer walls), or until a window, door or other opening interrupts the course (fig 10.12). Notch planks as needed to fit around windows and doors. Again, be sure to seal all cut edges. Avoid placing butt joints directly above or below windows or above doors. Separate the joint from the opening by at least one course of siding.

Where butt joints land on a stud, make sure there is enough stud space for plank on both sides of the joint to land properly. Optimally both sides of a butt joint should land in the middle of a stud with 3/4 in landing space for each side. The minimum stud space for a plank to land is 3/8 in

Pay special attention to window, doors, and corners that have been trimmed before the siding goes on. Vertical trim boards may cover the king studs beside windows or doors, or they may cover up corner studs leaving no room for nailing the siding. In these places add extra studs as needed.

If corners are trimmed with HardieTrim® 5/4, 4/4 boards, it may be necessary to measure and cut the first pieces of siding to make sure the butt joints land on studs.

10.12 Planking around windows

Add an extra stud if necessary for nailing the ends of the planks.



Notch plank around window trim and flashing.

Keep butt joints more than one course away from top of window.



COLORPLUS TIP: HardiePlank lap siding with ColorPlus Technology is shipped with a protective laminate slip sheet, which should be left in place during cutting and fastening to reduce marring and scratching. The sheet should be removed immediately after each plank is installed.



INSTALLING HARDIEPLANK® SIDING ON GABLE WALLS

Siding gable walls can be challenging, and some of the keys to siding gable walls efficiently are determining the angle or pitch of the roof, properly staging materials, and ensuring that the plank lengths are measured accurately.

To estimate the amount of siding needed to complete a gable end, use the estimating tools located in Appendix C.

Stage enough material on the pump jacks or scaffolding to complete the gable end, but take care not to overload the staging. When possible, a cut table should be located on the pump jacks or scaffolding, which frees up crew members to work on other walls.

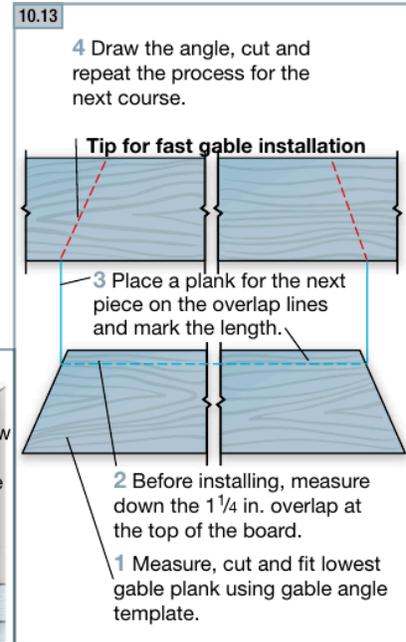
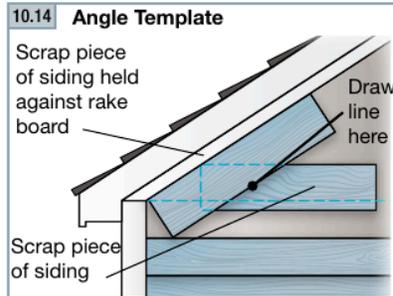
To cut planks for the gable:

1. Tack up a small scrap piece of siding where the first gable course is going.
2. Hold a second small piece of siding against the eave or rake board.
3. Trace the angle onto the scrap.
4. Cut that line and label the scrap as the template for the gable angle. The template can then be used to transfer the angle onto the larger pieces for cutting and installation.
5. Periodically check the angle as you progress up the wall.

The quickest way to measure and cut consecutive courses of siding for a gable is to work off the previous piece.

1. Cut and fit the lowest course of siding.
2. Before installing, lay it flat and measure down 1 1/4 in. from the top edge of the plank for the course overlap. Make a mark on both ends.
3. Set a piece of uncut siding on top of the first piece, aligning the bottom edge with the overlap marks. Transfer the length directly to the uncut piece.
4. Draw the gable angle with the template, cut the angle and then repeat the process for the next course.

TIP: Stainless steel fasteners are recommended when installing James Hardie® products.



HARDIEPLANK® SIDING FASTENER SPECIFICATIONS
 The Fastener Specifications table shows fastener options for a variety of different nailing substrates. Please refer to the applicable ESR report online (see back page) to determine which fastener meets your wind load design criteria.

| Fastener Substrate | | Approved Fastener | Fastener Type |
|---|------------|--|--|
| wood studs | blind nail | 16 in o.c. | ② .113 in x .267 in x 2 in — 6D common |
| | | 24 in o.c. | ③ ⑨ ⑬ .093 in x .222 in x 2 in — 6D siding nail |
| | face nail | 16 in o.c. | ② ⑤ No 11ga 1.25 in long — roofing nail |
| | | 24 in o.c. | ② ⑤ Ribbed Bugle-Head No. 8 .323 in x 1.625 in — screws |
| steel studs* | blind nail | 16 in o.c. | ⑧ ⑬ Ribbed Wafer-Head No. 8 (.375 in x 1.25 in) |
| | | 24 in o.c. | ⑫ [AKN-100] .100 in x .25 in x 1.5 in — ET&F |
| | face nail | 16 in o.c. | ⑭ [AGS-100] .100 in x .313 in x 1.5 in — screws |
| | | 24 in o.c. | ⑦ ⑫ [ASTM C-90] ASM-144-125 (P/C) .30 in x .14 in x 1.25 in — masonry nail |
| Direct to Masonry | | ⑭ .113 in x .260 in x 2.375 in — 8D common | |
| 7/16 in OSB or equivalent (face nailed) | | ④ No 11ga 1.75 in long — roofing nail | |
| | | | ④ .091 in. x .221 in. x 1.5 in — 4D siding nail |

*When blind fastening 9.5 in or wider product onto steel studs, use screws.

● indicates recommended fasteners



IMPORTANT: FAILURE TO FOLLOW JAMES HARDIE WRITTEN INSTALLATION INSTRUCTIONS AND COMPLY WITH APPLICABLE BUILDING CODES MAY VIOLATE LOCAL LAWS, AFFECT BUILDING ENVELOPE PERFORMANCE AND MAY AFFECT WARRANTY COVERAGE. FAILURE TO COMPLY WITH ALL HEALTH AND SAFETY REGULATIONS WHEN CUTTING AND INSTALLING THIS PRODUCT MAY RESULT IN PERSONAL INJURY. BEFORE INSTALLATION, CONFIRM YOU ARE USING THE CORRECT HARDIEZONE® PRODUCT INSTRUCTIONS BY VISITING HARDIEZONE.COM OR CALL 1-866-942-7343 (866-9-HARDIE)

⚠ CUTTING INSTRUCTIONS

STORAGE & HANDLING:

Store flat and keep dry and covered prior to installation. Installing siding wet or saturated may result in shrinkage at butt joints. Carry planks on edge. Protect edges and corners from breakage. James Hardie is not responsible for damage caused by improper storage and handling of the product.



OUTDOORS

- Position cutting station so that airflow blows dust away from the user and others near the cutting area.
- Cut using one of the following methods:
 - Best: Circular saw equipped with a HardieBlade® saw blade and attached vacuum dust collection system. Shears (manual, pneumatic or electric) may also be used, not recommended for products thicker than 7/16 in.
 - Better: Circular saw equipped with a dust collection feature (e.g. Roan® saw) and a HardieBlade saw blade.
 - Good: Circular saw equipped with a HardieBlade saw blade.

INDOORS

- DO NOT grind or cut with a power saw indoors. Cut using shears (manual, pneumatic or electric) or the score and snap method, not recommended for products thicker than 7/16 in.
- DO NOT dry sweep dust; use wet dust suppression or vacuum to collect dust.
 - For maximum dust reduction, James Hardie recommends using the "Best" cutting practices. Always follow the equipment manufacturer's instructions for proper operation.
 - For best performance when cutting with a circular saw, James Hardie recommends using HardieBlade® saw blades.
 - Go to jameshardiepros.com for additional cutting and dust control recommendations.

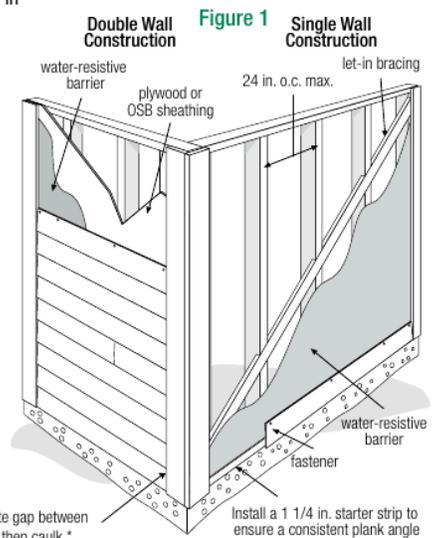
IMPORTANT: The Occupational Safety and Health Administration (OSHA) regulates workplace exposure to silica dust. For construction sites, OSHA has deemed that cutting fiber cement with a circular saw having a blade diameter less than 8 inches and connected to a commercially available dust collection system per manufacturer's instructions results in exposures below the OSHA Permissible Exposure Limit (PEL) for respirable crystalline silica, without the need for additional respiratory protection.

If you are unsure about how to comply with OSHA silica dust regulations, consult a qualified industrial hygienist or safety professional, or contact your James Hardie technical sales representative for assistance. James Hardie makes no representation or warranty that adopting a particular cutting practice will assure your compliance with OSHA rules or other applicable laws and safety requirements.

IMPORTANT: To prevent damage to the drip edge, extra care should be taken when removing planks from the pallet, while handling, and when installing with a lap gauge. Please see additional handling requirements on page 4.

GENERAL REQUIREMENTS:

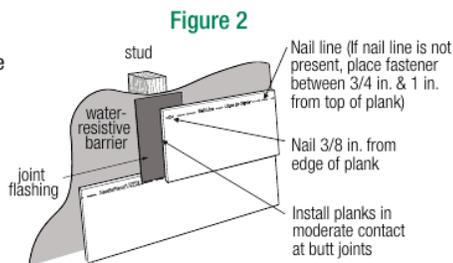
- HardiePlank® lap siding can be installed over braced wood or steel studs, 20 gauge (33 mils) minimum to 16 gauge (54 mils) maximum, spaced a maximum of 24 in o.c. or directly to minimum 7/16 in thick OSB sheathing. See General Fastening Requirements. Irregularities in framing and sheathing can mirror through the finished application. Correct irregularities before installing siding.
- Information on installing James Hardie products over non-nailable substrates (ex: gypsum, foam, etc.) can be located in JH Tech Bulletin 19 at www.jameshardie.com
- A water-resistive barrier is required in accordance with local building code requirements. The water-resistive barrier must be appropriately installed with penetration and junction flashing in accordance with local building code requirements. James Hardie will assume no responsibility for water infiltration. James Hardie does manufacture HardieWrap® Weather Barrier, a non-woven non-perforated housewrap¹, which complies with building code requirements.
- Adjacent finished grade must slope away from the building in accordance with local building codes - typically a minimum of 6 in. in the first 10 ft..
- Do not use HardiePlank lap siding in Fascia or Trim applications.
- Do not install James Hardie products, such that they may remain in contact with standing water.
- HardiePlank lap siding may be installed on flat vertical wall applications only.
- For larger projects, including commercial and multi-family projects, where the span of the wall is significant in length, the designer and/or architect should take into consideration the coefficient of thermal expansion and moisture movement of the product in their design. These values can be found in the Technical Bulletin "Expansion Characteristics of James Hardie® Siding Products" at www.jameshardie.com.
- James Hardie Building Products provides installation /wind load information for buildings with a maximum mean roof height of 85 feet. For information on installations above 60 feet, please contact JH technical support.



INSTALLATION: JOINT TREATMENT

One or more of the following joint treatment options are required by code (as referenced 2009 IRC R703.10.2)

- Joint Flashing (James Hardie recommended)
- Caulking* (Caulking is not recommended for ColorPlus for aesthetic reasons as the Caulking and ColorPlus will weather differently. For the same reason, do not caulk nail heads on ColorPlus products.)
- "H" jointer cover



Note: Field painting over caulking may produce a sheen difference when compared to the field painted PrimePlus. *Refer to Caulking section in these instructions.
¹For additional information on HardieWrap® Weather Barrier, consult James Hardie at 1-866-4Hardie or www.hardiewrap.com





CLEARANCE AND FLASHING REQUIREMENTS

Figure 3
Roof to Wall

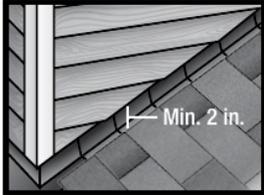


Figure 4
Horizontal Flashing

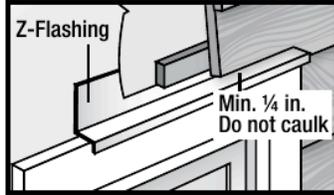


Figure 5
Kickout Flashing

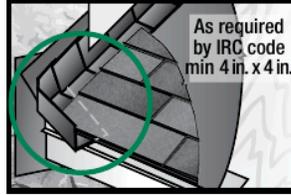


Figure 6
Slabs, Path, Steps to Siding

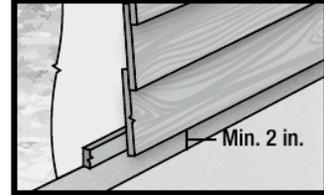


Figure 7
Deck to Wall

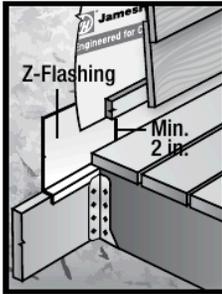


Figure 8
Ground to Siding

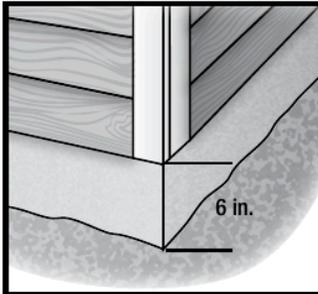


Figure 9
Gutter to Siding



Figure 10
Sheltered Areas

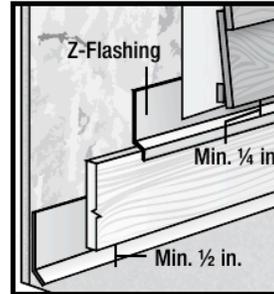


Figure 11
Mortar/Masonry

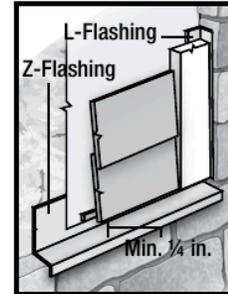


Figure 12
Drip Edge

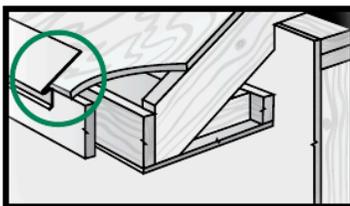


Figure 13
Block Penetration

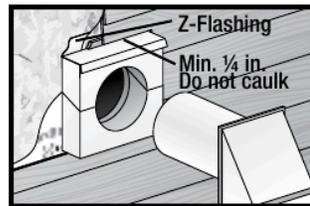


Figure 14
Valley/Shingle Extension



FASTENER REQUIREMENTS*

Refer to the applicable ESR report online to determine which fastener meets your wind load design criteria.

Blind Nailing is the preferred method of installation for HardiePlank® lap siding products. Face nailing should only be used where required by code for high wind areas and must not be used in conjunction with Blind nailing (Please see JH Tech bulletin 17 for exemption when doing a repair).

BLIND NAILING

Nails - Wood Framing

- Siding nail (0.09 in. shank x 0.221 in. HD x 2 in. long)
- 11ga. roofing nail (0.121 in. shank x 0.371 in. HD x 1.25 in. long)

Screws - Steel Framing

- Ribbed Wafer-head or equivalent (No. 8 x 1 1/4 in. long x 0.375 in. HD) Screws must penetrate 3 threads into metal framing.

Nails - Steel Framing

- ET & F Panelfast® nails or equivalent (0.10 in. shank x 0.313 in. HD x 1-1/2 in. long) Nails must penetrate minimum 1/4 in. into metal framing.

OSB minimum 7/16 in.

- Siding nail (0.09 in. shank x 0.215 in. HD x 1-1/2 in. long)
- Ribbed Wafer-head or equivalent (No. 8 x 1 5/8 in. long x 0.375 in. HD).

FACE NAILING

Nails - Wood Framing

- 6d (0.113 in. shank x 0.267 in. HD x 2 in. long)
- Siding nail (0.09" shank x 0.221" HD x 2" long)

Screws - Steel Framing

- Ribbed Bugle-head or equivalent (No. 8-18 x 1-5/8 in. long x 0.323 in. HD) Screws must penetrate 3 threads into metal framing.

Nails - Steel Framing

- ET & F pin or equivalent (0.10 in. shank x 0.25 in. HD x 1-1/2 in. long) Nails must penetrate minimum 1/4 in. into metal framing.

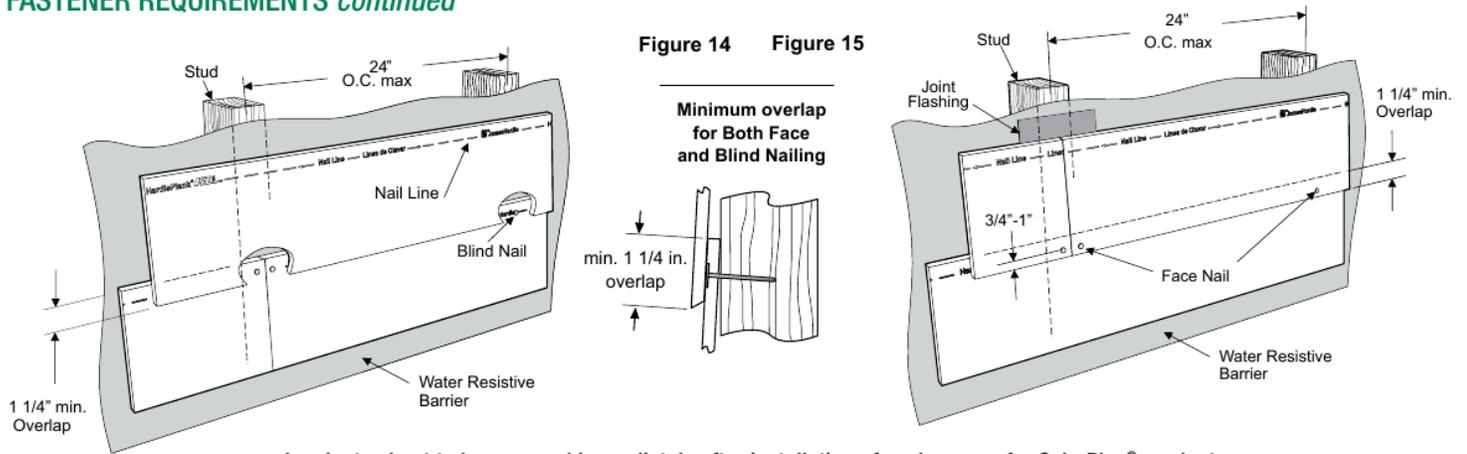
OSB minimum 7/16 in.

- Siding nail (0.09 in. shank x 0.221 in. HD x 1-1/2 in. long)

*Also see General Fastening Requirements; and when considering alternative fastening options refer to James Hardie's Technical Bulletin USTB 5 - Fastening Tips for HardiePlank Lap Siding.



FASTENER REQUIREMENTS *continued*



Laminate sheet to be removed immediately after installation of each course for ColorPlus® products.

Pin-backed corners may be done for aesthetic purposes only. Finish nails are recommended for pin-backs. Headed siding nails are allowed. Place pin-backs no closer than 1 in. from plank ends and 3/4 in. from plank edge into min. 3/8 in. wood structural panel. Pin-backs are not a substitute for blind or face nailing.

GENERAL FASTENING REQUIREMENTS

Fasteners must be corrosion resistant, galvanized, or stainless steel. Electro-galvanized are acceptable but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. James Hardie is not responsible for the corrosion resistance of fasteners. Stainless steel fasteners are recommended when installing James Hardie® products near the ocean, large bodies of water, or in very humid climates.

Manufacturers of ACQ and CA preservative-treated wood recommend spacer materials or other physical barriers to prevent direct contact of ACQ or CA preservative-treated wood and aluminum products. Fasteners used to attach HardieTrim Tabs to preservative-treated wood shall be of hot dipped zinc-coated galvanized steel or stainless steel and in accordance to 2009 IRC R317.3 or 2009 IBC 2304.9.5

- Consult applicable product evaluation or listing for correct fasteners type and placement to achieve specified design wind loads.
- NOTE: Published wind loads may not be applicable to all areas where Local Building Codes have specific jurisdiction. Consult James Hardie Technical Services if you are unsure of applicable compliance documentation.
- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space).
- NOTE: Whenever a structural member is present, HardiePlank should be fastened with even spacing to the structural member. The tables allowing direct to OSB or plywood should only be used when traditional framing is not available.

CUT EDGE TREATMENT

Caulk, paint or prime all field cut edges. James Hardie touch-up kits are required to touch-up ColorPlus products.

CAULKING

For best results use an Elastomeric Joint Sealant complying with ASTM C920 Grade NS, Class 25 or higher or a Latex Joint Sealant complying with ASTM C834. Caulking/Sealant must be applied in accordance with the caulking/sealant manufacturer's written instructions.

Note: some caulking manufacturers do not allow "tooling".

PAINTING

DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie® products. Factory-primed James Hardie products must be painted within 180 days of installation. 100% acrylic topcoats are recommended. Do not paint when wet. For application rates refer to paint manufacturers specifications. Back-rolling is recommended if the siding is sprayed.

PNEUMATIC FASTENING

James Hardie products can be hand nailed or fastened with a pneumatic tool. Pneumatic fastening is highly recommended. Set air pressure so that the fastener is driven snug with the surface of the siding. A flush mount attachment on the pneumatic tool is recommended. This will help control the depth the nail is driven. If setting the nail depth proves difficult, choose a setting that under drives the nail. (Drive under driven nails snug with a smooth faced hammer - Does not apply for installation to steel framing).

| | | | | |
|---|--|---|--|--|
| <p>SNUG FLUSH</p> | | | | |
| <p>DO NOT</p> <p>UNDER DRIVE</p> | | <p>DO NOT</p> <p>OVER DRIVE SLANT</p> | | <p>DO NOT USE</p> <p>ALUMINUM FASTENERS</p> <p>CLIPPED HEAD NAILS</p> <p>STAPLES</p> |
| <p>IF, THEN</p> <p>WOOD FRAME STEEL FRAME</p> <p>HAMMER FLUSH REMOVE & REPLACE</p> | | <p>IF, THEN ADDITIONAL NAIL</p> <p>FACE NAIL</p> <p>COUNTERSINK & FILL</p> | | |



COLORPLUS® TECHNOLOGY CAULKING, TOUCH-UP & LAMINATE

- Care should be taken when handling and cutting James Hardie ColorPlus® products. During installation use a wet soft cloth or soft brush to gently wipe off any residue or construction dust left on the product, then rinse with a garden hose.
- Touch up nicks, scrapes and nail heads using the ColorPlus® Technology touch-up applicator. Touch-up should be used sparingly. If large areas require touch-up, replace the damaged area with new HardiePlank® lap siding with ColorPlus® Technology.
- Laminate sheet must be removed immediately after installation of each course.
- Terminate non-factory cut edges into trim where possible, and caulk. Color matched caulks are available from your ColorPlus® product dealer.
- Treat all other non-factory cut edges using the ColorPlus Technology edge coaters, available from your ColorPlus product dealer.

Note: James Hardie does not warrant the usage of third party touch-up or paints used as touch-up on James Hardie ColorPlus products.

Problems with appearance or performance arising from use of third party touch-up paints or paints used as touch-up that are not James Hardie touch-up will not be covered under the James Hardie ColorPlus Limited Finish Warranty.

COVERAGE CHART/ESTIMATING GUIDE

Number of 12 ft. planks, does not include waste

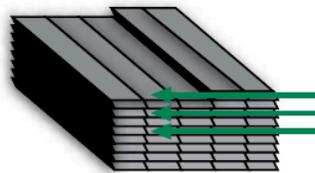
| COVERAGE AREA LESS OPENINGS | HARDIEPLANK® LAP SIDING WIDTH | | | | | | | | | |
|-----------------------------------|-------------------------------|------------|------------|------------|----------------|------------|------------|------------|----------------|--------------|
| | (exposure) | 5 1/4 4 | 6 1/4 5 | 7 1/4 6 | 7 1/2 6 1/4 | 8 6 3/4 | 8 1/4 7 | 9 1/4 8 | 9 1/2 8 1/4 | 12 10 3/4 |
| SQ (1 SQ = 100 sq.ft.) | | | | | | | | | | |
| 1 | | 25 | 20 | 17 | 16 | 15 | 14 | 13 | 13 | 9 |
| 2 | | 50 | 40 | 33 | 32 | 30 | 29 | 25 | 25 | 19 |
| 3 | | 75 | 60 | 50 | 48 | 44 | 43 | 38 | 38 | 28 |
| 4 | | 100 | 80 | 67 | 64 | 59 | 57 | 50 | 50 | 37 |
| 5 | | 125 | 100 | 83 | 80 | 74 | 71 | 63 | 63 | 47 |
| 6 | | 150 | 120 | 100 | 96 | 89 | 86 | 75 | 75 | 56 |
| 7 | | 175 | 140 | 117 | 112 | 104 | 100 | 88 | 88 | 65 |
| 8 | | 200 | 160 | 133 | 128 | 119 | 114 | 100 | 100 | 74 |
| 9 | | 225 | 180 | 150 | 144 | 133 | 129 | 113 | 113 | 84 |
| 10 | | 250 | 200 | 167 | 160 | 148 | 143 | 125 | 125 | 93 |
| 11 | | 275 | 220 | 183 | 176 | 163 | 157 | 138 | 138 | 102 |
| 12 | | 300 | 240 | 200 | 192 | 178 | 171 | 150 | 150 | 112 |
| 13 | | 325 | 260 | 217 | 208 | 193 | 186 | 163 | 163 | 121 |
| 14 | | 350 | 280 | 233 | 224 | 207 | 200 | 175 | 175 | 130 |
| 15 | | 375 | 300 | 250 | 240 | 222 | 214 | 188 | 188 | 140 |
| 16 | | 400 | 320 | 267 | 256 | 237 | 229 | 200 | 200 | 149 |
| 17 | | 425 | 340 | 283 | 272 | 252 | 243 | 213 | 213 | 158 |
| 18 | | 450 | 360 | 300 | 288 | 267 | 257 | 225 | 225 | 167 |
| 19 | | 475 | 380 | 317 | 304 | 281 | 271 | 238 | 238 | 177 |
| 20 | | 500 | 400 | 333 | 320 | 296 | 286 | 250 | 250 | 186 |

This coverage chart is meant as a guide. Actual usage is subject to variables such as building design. James Hardie does not assume responsibility for over or under ordering of product.

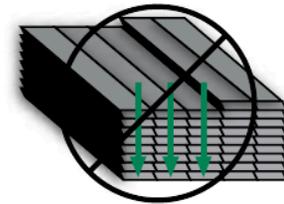
ADDITIONAL HANDLING REQUIREMENTS

IMPORTANT: To prevent damage to the drip edge, extra care should be taken when removing planks from the pallet, while handling, and when installing with a lap gauge. Planks are interlocked together on the pallet, therefore they should be removed from the pallet horizontally (side to side) to allow planks to unlock themselves from one another.

Pull from across the stack



Do not go down the stack



HS11117 P4/4 09/19

SILICA WARNING

DANGER: May cause cancer if dust from product is inhaled. Causes damage to lungs and respiratory system through prolonged or repeated inhalation of dust from product. Refer to the current product Safety Data Sheet before use. The hazard associated with fiber cement arises from crystalline silica present in the dust generated by activities such as cutting, machining, drilling, routing, sawing, crushing, or otherwise abrading fiber cement, and when cleaning up, disposing of or moving the dust. When doing any of these activities in a manner that generates dust you must (1) comply with the OSHA standard for silica dust and/or other applicable law, (2) follow James Hardie cutting instructions to reduce or limit the release of dust; (3) warn others in the area to avoid breathing the dust; (4) when using mechanical saw or high speed cutting tools, work outdoors and use dust collection equipment; and (5) if no other dust controls are available, wear a dust mask or respirator that meets NIOSH requirements (e.g. N-95 dust mask). During clean-up, use a well maintained vacuum and filter appropriate for capturing fine (respirable) dust or use wet clean-up methods - never dry sweep.

WARNING: This product can expose you to chemicals including respirable crystalline silica, which is known to the State of California to cause cancer. For more information go to P65Warnings.ca.gov.

RECOGNITION: In accordance with ICC-ES Evaluation Report ESR-2290, HardiePlank® lap siding is recognized as a suitable alternate to that specified in the 2006, 2009, 2012 & 2015 International Residential Code for One and Two-Family Dwellings, and the 2006, 2009, 2012 & 2015 International Building Code. HardiePlank lap siding is also recognized for application in the following: City of Los Angeles Research Report No. 24862, State of Florida Product Approval FL#13192, Miami-Dade County Florida NOA No. 17-0406.06, U.S. Dept. of HUD Materials Release 1263f, Texas Department of Insurance Product Evaluation EC-23, City of New York MEA 223-93-M, and California DSA PA-019. These documents should also be consulted for additional information concerning the suitability of this product for specific applications.

EWP - Exterior Wall Panel

EXTERIOR WALL PANEL

Manufacturer: James Hardie Building Products, Inc.
Style/Series: Vertical Fiber Cement Siding

Attributes

Item Type: Fiber cement board architectural panels
Model: Panel Siding

DIMENSIONS

Length: 96"
Height: 48"
Thickness: 5/16"

MATERIAL / FINISH

Material Composition: Fiber cement panels manufactured from a pressed, stamped, and autoclaved mix of Portland cement, fly ash, silica, recycled rejects, and wood fiber bundles
Color: Arctic White
Finish: Smooth

PERFORMANCE

Fire/Smoke Rating: Surface Burning (ASTM E-84): Flame Spread: 0, Smoke Developed: 5
Quality Standards: ASTM C1186, Type A, Grade II "Standard Specification for Flat Non-Asbestos Fiber-Cement Sheets"
Thermal Performance: R = 0.48
Structural Performance: Wet Flexural Strength: lower limit: 1015 psi

MISCELLANEOUS

Warranty: 30 years
Notes / Special Instructions: Horizontal Joints: 1-1/4" overlap.
Fasteners: Corrosion resistant, galvanized, or stainless steel fasteners. Sealant: Elastomeric joint sealant complying with ASTM C920 Grade NS, Class 25 or higher or a Latex joint sealant complying with ASTM C834. Caulk, paint or prime all field cut edges.
Special Instructions Refer to manufacturer's literature for products approved for use in climate zone HZ5 or zone HZ10. Factory-primed products must be painted within 180 days of installation. 100% acrylic topcoats are recommended; do not use stain, oil/alkyd base paint, or powder coating.

CUSTOM FIELDS

Texture/Luster: Smooth



Statement Collection® Products

It's your turn to let your home stand out with our Statement Collection® products. Curated by our design experts, this collection of Hardie® siding and trim products with ColorPlus® Technology finishes are unique to your home's region. This gorgeous selection is locally stocked in your area, making it easier than ever to find the exterior style of your dreams.

COLORPLUS® TECHNOLOGY

ColorPlus® Technology finishes combine distinct beauty and high performance in a way that no other finish does. They're the easiest way to choose a gorgeous pre-finished color for your house, and feel confident in its staying power.



Scan code to request a sample.

Hardie® Plank, Hardie® Panel, Hardie® Shingle and Hardie® Trim Batten Color Offering



Hardie® Trim Color Offering



Hardie® Soffit Color Offering



Hardie® Plank

Thickness 5/16 in
Length 12 ft planks
Select Cedarmill® & Smooth
Width 8.25 in
Exposure 7 in



Hardie® Panel

Thickness 5/16 in
Select Cedarmill® & Smooth
Size 4 ft x 10 ft



Hardie® Shingle

Thickness 1/4 in
Length 48 in
Straight Edge Panel
Staggered Edge Panel
Height 15.25 in
Exposure 7 in
Exposure 6 in



Hardie® Soffit

Thickness 1/4 in
Vented Smooth
Width 12 in 16 in 24 in
Length 12 ft 12 ft 8 ft



Non-Vented Smooth
Width 12 in 16 in 24 in
Length 12 ft 12 ft 8 ft



Hardie® Trim

Length 12 ft
4/4 Smooth
Thickness .75 in
Width 3.5 in 5.5 in 7.25 in 9.25 in 11.25 in
5/4 Smooth
Thickness 1 in
Width 3.5 in 4.5 in 5.5 in 7.25 in 9.25 in 11.25 in



*This size is only available in Arctic White

Batten Boards

Smooth
Thickness .75 in
Length 12 ft. boards
Width 2.5 in



Designed for versatility and beautiful performance.

Hardie® Panel

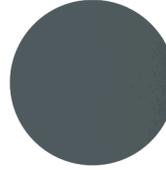
Hardie® Panel delivers style and substance. When combined with Hardie® Trim Batten, it achieves the rustic board-and-batten look that defines your charming cottage or modern farmhouse. Its crisp, clean lines and ability to pair beautifully with other siding products make Hardie® Panel a smart choice for the home of your dreams.



Hardie® Panel



Select Cedarmill®



Smooth



Stucco



Sierra 8

| | Thickness 5/16 in | | |
|-----------------------|-------------------|-------------|--------------|
| Size | 4 ft x 8 ft | 4 ft x 9 ft | 4 ft x 10 ft |
| Prime Pcs/Pallet | 50 | 50 | 50 |
| ColorPlus® Pcs/Pallet | 50 | — | 50 |
| Pcs/Sq. | 3.2 | 2.8 | 2.5 |

Select Cedarmill®

| Size | 4 ft x 8 ft | 4 ft x 9 ft | 4 ft x 10 ft |
|-----------------------|-------------|-------------|--------------|
| Statement Collection® | | | • |
| Dream Collection® | • | | • |
| Prime | • | • | • |

Smooth

| Size | 4 ft x 8 ft | 4 ft x 9 ft | 4 ft x 10 ft |
|-----------------------|-------------|-------------|--------------|
| Statement Collection® | | | • |
| Dream Collection® | • | | • |
| Prime | • | • | • |

Stucco

| Size | 4 ft x 8 ft | 4 ft x 9 ft | 4 ft x 10 ft |
|-----------------------|-------------|-------------|--------------|
| Statement Collection® | | | |
| Dream Collection® | • | | • |
| Prime | • | • | • |

Sierra 8

| Size | 4 ft x 8 ft | 4 ft x 9 ft | 4 ft x 10 ft |
|-----------------------|-------------|-------------|--------------|
| Statement Collection® | | | |
| Dream Collection® | | | |
| Prime | • | • | • |

EXTERIOR WALL PANEL

Manufacturer: James Hardie Building Products, Inc.
Style/Series: Vertical Fiber Cement Siding

Attributes

Item Type: Fiber cement board architectural panels
Model: Panel Siding

DIMENSIONS

Length: 96"
Height: 48"
Thickness: 5/16"

MATERIAL / FINISH

Material Composition: Fiber cement panels manufactured from a pressed, stamped, and autoclaved mix of Portland cement, fly ash, silica, recycled rejects, and wood fiber bundles
Color: Cobblestone
Finish: Smooth

PERFORMANCE

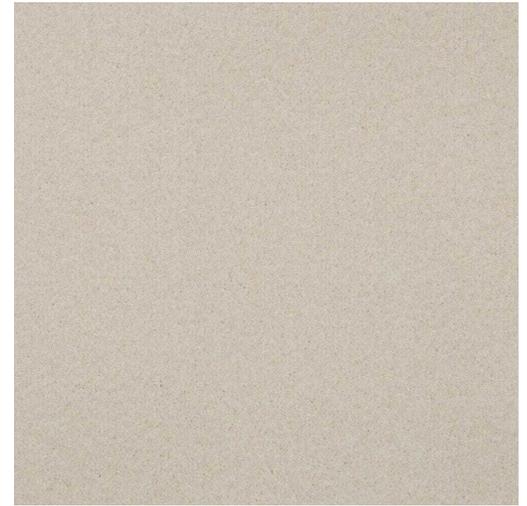
Fire/Smoke Rating: Surface Burning (ASTM E-84): Flame Spread: 0,
Smoke Developed: 5
Quality Standards: ASTM C1186, Type A, Grade II "Standard Specification for Flat Non-Asbestos Fiber-Cement Sheets"
Thermal Performance: R = 0.48
Structural Performance: Wet Flexural Strength: lower limit: 1015 psi

MISCELLANEOUS

Warranty: 30 years
Notes / Special Instructions: Horizontal Joints: 1-1/4" overlap.
Fasteners: Corrosion resistant, galvanized, or stainless steel fasteners. Sealant: Elastomeric joint sealant complying with ASTM C920 Grade NS, Class 25 or higher or a Latex joint sealant complying with ASTM C834. Caulk, paint or prime all field cut edges. Special Instructions Refer to manufacturer's literature for products approved for use in climate zone HZ5 or zone HZ10. Factory-primed products must be painted within 180 days of installation. 100% acrylic topcoats are recommended; do not use stain, oil/alkyd base paint, or powder coating.

CUSTOM FIELDS

Texture/Luster: Smooth



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It's your turn to let your home stand out with our Statement Collection® products. Curated by our design experts, this collection of Hardie® siding and trim products with ColorPlus® Technology finishes are unique to your home's region. This gorgeous selection is locally stocked in your area, making it easier than ever to find the exterior style of your dreams.

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Scan code to request a sample.

Hardie® Plank, Hardie® Panel, Hardie® Shingle and Hardie® Trim Batten Color Offering



Hardie® Trim Color Offering



Hardie® Soffit Color Offering



Hardie® Plank

Thickness 5/16 in
Length 12 ft planks
Select Cedarmill® & Smooth
Width 8.25 in
Exposure 7 in



Hardie® Panel

Thickness 5/16 in
Select Cedarmill® & Smooth
Size 4 ft x 10 ft



Hardie® Shingle

Thickness 1/4 in
Length 48 in
Straight Edge Panel
Staggered Edge Panel
Height 15.25 in
Height 15.25 in
Exposure 7 in
Exposure 6 in



Hardie® Soffit

Thickness 1/4 in
Vented Smooth
Width 12 in 16 in 24 in
Length 12 ft 12 ft 8 ft



Non-Vented Smooth

Width 12 in 16 in 24 in
Length 12 ft 12 ft 8 ft



Hardie® Trim

Length 12 ft
4/4 Smooth
Thickness .75 in
Width 3.5 in 5.5 in 7.25 in 9.25 in 11.25 in
5/4 Smooth
Thickness 1 in
Width 3.5 in 4.5 in 5.5 in 7.25 in 9.25 in 11.25 in



*This size is only available in Arctic White

Batten Boards

Smooth
Thickness .75 in
Length 12 ft. boards
Width 2.5 in



Colors shown are as accurate as printing methods will permit. Please see actual product sample for true color.

Designed for versatility and beautiful performance.

Hardie® Panel

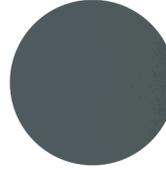
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Hardie® Panel



Select Cedarmill®



Smooth



Stucco



Sierra 8

| | Thickness 5/16 in | | |
|-----------------------|-------------------|-------------|--------------|
| Size | 4 ft x 8 ft | 4 ft x 9 ft | 4 ft x 10 ft |
| Prime Pcs/Pallet | 50 | 50 | 50 |
| ColorPlus® Pcs/Pallet | 50 | — | 50 |
| Pcs/Sq. | 3.2 | 2.8 | 2.5 |

Select Cedarmill®

| Size | 4 ft x 8 ft | 4 ft x 9 ft | 4 ft x 10 ft |
|-----------------------|-------------|-------------|--------------|
| Statement Collection® | | | • |
| Dream Collection® | • | | • |
| Prime | • | • | • |

Smooth

| Size | 4 ft x 8 ft | 4 ft x 9 ft | 4 ft x 10 ft |
|-----------------------|-------------|-------------|--------------|
| Statement Collection® | | | • |
| Dream Collection® | • | | • |
| Prime | • | • | • |

Stucco

| Size | 4 ft x 8 ft | 4 ft x 9 ft | 4 ft x 10 ft |
|-----------------------|-------------|-------------|--------------|
| Statement Collection® | | | |
| Dream Collection® | • | | • |
| Prime | • | • | • |

Sierra 8

| Size | 4 ft x 8 ft | 4 ft x 9 ft | 4 ft x 10 ft |
|-----------------------|-------------|-------------|--------------|
| Statement Collection® | | | |
| Dream Collection® | | | |
| Prime | • | • | • |

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Style/Series: Vertical Fiber Cement Siding

Attributes

Item Type: Fiber cement board architectural panels
Model: Panel Siding

DIMENSIONS

Length: 96"
Height: 48"
Thickness: 5/16"

MATERIAL / FINISH

Material Composition: Fiber cement panels manufactured from a pressed, stamped, and autoclaved mix of Portland cement, fly ash, silica, recycled rejects, and wood fiber bundles
Color: Arctic White
Finish: Smooth

PERFORMANCE

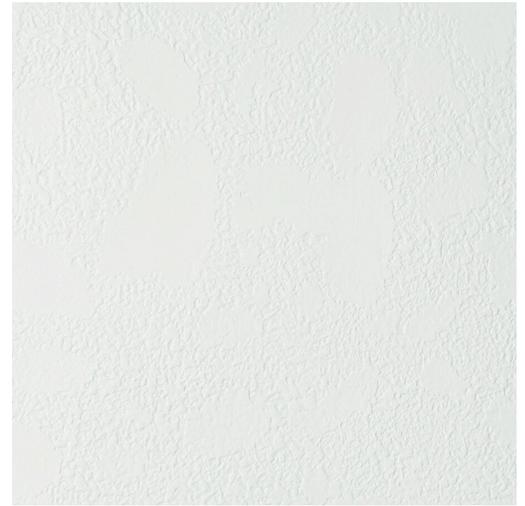
Fire/Smoke Rating: Surface Burning (ASTM E-84): Flame Spread: 0,
Smoke Developed: 5
Quality Standards: ASTM C1186, Type A, Grade II "Standard Specification for Flat Non-Asbestos Fiber-Cement Sheets"
Thermal Performance: R = 0.48
Structural Performance: Wet Flexural Strength: lower limit: 1015 psi

MISCELLANEOUS

Warranty: 30 years
Notes / Special Instructions: Horizontal Joints: 1-1/4" overlap.
Fasteners: Corrosion resistant, galvanized, or stainless steel fasteners. Sealant: Elastomeric joint sealant complying with ASTM C920 Grade NS, Class 25 or higher or a Latex joint sealant complying with ASTM C834. Caulk, paint or prime all field cut edges. Special Instructions Refer to manufacturer's literature for products approved for use in climate zone HZ5 or zone HZ10. Factory-primed products must be painted within 180 days of installation. 100% acrylic topcoats are recommended; do not use stain, oil/alkyd base paint, or powder coating.

CUSTOM FIELDS

Texture/Luster: Smooth



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Hardie® Trim Color Offering



Hardie® Soffit Color Offering



Hardie® Plank

Thickness 5/16 in
Length 12 ft planks
Select Cedarmill® & Smooth
Width 8.25 in
Exposure 7 in



Hardie® Panel

Thickness 5/16 in
Select Cedarmill® & Smooth
Size 4 ft x 10 ft



Hardie® Shingle

Thickness 1/4 in
Length 48 in
Straight Edge Panel
Staggered Edge Panel
Height 15.25 in
Exposure 7 in
Exposure 6 in



Hardie® Soffit

Thickness 1/4 in
Vented Smooth
Width 12 in 16 in 24 in
Length 12 ft 12 ft 8 ft



Non-Vented Smooth
Width 12 in 16 in 24 in
Length 12 ft 12 ft 8 ft



Hardie® Trim

Length 12 ft
4/4 Smooth
Thickness .75 in
Width 3.5 in 5.5 in 7.25 in 9.25 in 11.25 in
5/4 Smooth
Thickness 1 in
Width 3.5 in 4.5 in 5.5 in 7.25 in 9.25 in 11.25 in



*This size is only available in Arctic White

Batten Boards

Smooth
Thickness .75 in
Length 12 ft. boards
Width 2.5 in



Designed for versatility and beautiful performance.

Hardie® Panel

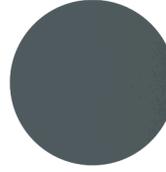
Hardie® Panel delivers style and substance. When combined with Hardie® Trim Batten, it achieves the rustic board-and-batten look that defines your charming cottage or modern farmhouse. Its crisp, clean lines and ability to pair beautifully with other siding products make Hardie® Panel a smart choice for the home of your dreams.



Hardie® Panel



Select Cedarmill®



Smooth



Stucco



Sierra 8

Thickness 5/16 in

| Size | 4 ft x 8 ft | 4 ft x 9 ft | 4 ft x 10 ft |
|-----------------------|-------------|-------------|--------------|
| Prime Pcs/Pallet | 50 | 50 | 50 |
| ColorPlus® Pcs/Pallet | 50 | — | 50 |
| Pcs/Sq. | 3.2 | 2.8 | 2.5 |

Select Cedarmill®

| Size | 4 ft x 8 ft | 4 ft x 9 ft | 4 ft x 10 ft |
|-----------------------|-------------|-------------|--------------|
| Statement Collection® | | | • |
| Dream Collection® | • | | • |
| Prime | • | • | • |

Smooth

| Size | 4 ft x 8 ft | 4 ft x 9 ft | 4 ft x 10 ft |
|-----------------------|-------------|-------------|--------------|
| Statement Collection® | | | • |
| Dream Collection® | • | | • |
| Prime | • | • | • |

Stucco

| Size | 4 ft x 8 ft | 4 ft x 9 ft | 4 ft x 10 ft |
|-----------------------|-------------|-------------|--------------|
| Statement Collection® | | | |
| Dream Collection® | • | | • |
| Prime | • | • | • |

Sierra 8

| Size | 4 ft x 8 ft | 4 ft x 9 ft | 4 ft x 10 ft |
|-----------------------|-------------|-------------|--------------|
| Statement Collection® | | | |
| Dream Collection® | | | |
| Prime | • | • | • |

EXTERIOR WALL PANEL

Fiber cement lap siding boards, panel...

Manufacturer: James Hardie Building Products, Inc.

Style/Series: HardiePlank Lap Siding, Cobblestone - Smooth

Sales Rep

Primary

Email: No.Email.415

Office Phone: 888-542-7343

Attributes

Fiber cement lap siding boards, panels, trim, fascia and accessories

Type: Fiber cement board siding

DIMENSIONS

Length: 12'

Height: 7-1/4"

Thickness: 5/16"

MATERIAL / FINISH

Material Composition: Fiber cement panels manufactured from a pressed, stamped, and autoclaved mix of Portland cement, fly ash, silica, recycled rejects, and wood fiber bundles

Color: Cobblestone

Finish: Smooth

PERFORMANCE

Fire/Smoke Rating: Surface Burning (ASTM E-84): Flame Spread: 0, Smoke Developed: 5

Quality Standards: ASTM C1186, Type A, Grade II "Standard Specification for Flat Non-Asbestos Fiber-Cement Sheets"

Structural Performance: Wet Flexural Strength: lower limit: 1015 psi

Thermal Performance: R = 0.48

MISCELLANEOUS

Lead Time: 10 weeks +

Warranty: 30 years

Eco-Feature(s) *as per manufacturer: Recycled content

CUSTOM FIELDS

Texture/Luster: Smooth

Notes

Horizontal joints: 1-1/4" overlap.

Fasteners: Corrosion resistant, galvanized, or stainless steel fasteners.

Sealant: Elastomeric joint sealant complying with ASTM C920 Grade



NS,
Class 25 or higher or a Latex joint sealant complying with ASTM
C834.
Caulk, paint or prime all field cut edges.

Special Instructions

Refer to manufacturer's literature for products approved for use in
climate zone HZ5 or zone HZ10.
Factory-primed products must be painted within 180 days of
installation. 100% acrylic topcoats are recommended; do not use
stain, oil/alkyd base paint, or powder coating.

HardiePlank® Lap Siding Product Description

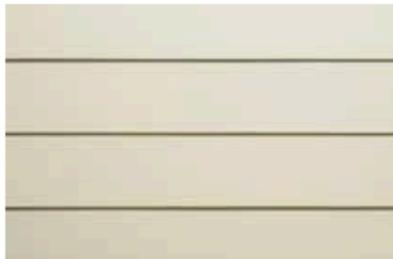
HardiePlank® lap siding is factory-primed fiber-cement lap siding available in a variety of styles and textures. Please see your local James Hardie® product dealer for product availability. HardiePlank lap siding comes in 12 ft. lengths. Nominal widths from 5 1/4 in. to 12 in. create a range of exposures from 4 in. to 10 3/4 in.

HardiePlank lap siding is also available with ColorPlus® Technology as one of James Hardie's prefinished products. ColorPlus® Technology is a factory applied, oven-baked finish available on a variety of James Hardie siding and trim products. See your local dealer for details and availability of products, colors, and accessories.

The HZ5® product line is right at home in climates with freezing temperatures, seasonal temperature variations, snow and ice. HZ5® boards are the result of our generational evolution of our time-tested products. We've evolved our substrate composition to be specifically designed to perform in conditions found in these climates. To ensure that its beauty matches its durability, we've engineered the surface for higher performance, giving it superior paint adhesion and moisture resistance. In addition, we've added a drip edge to the HardiePlank® HZ5® lap siding product to provide improved water management in conditions specific to HZ5® climates.



Select Cedarmill®



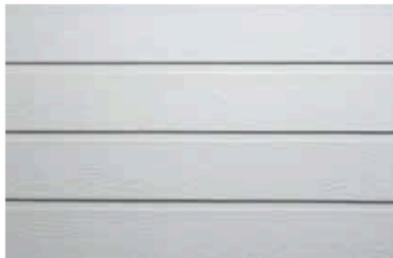
Smooth



Beaded Cedarmill®



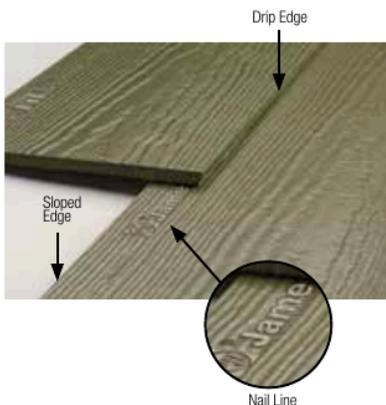
Beaded Smooth



Custom Colonial Roughsawn®



Custom Colonial Smooth®

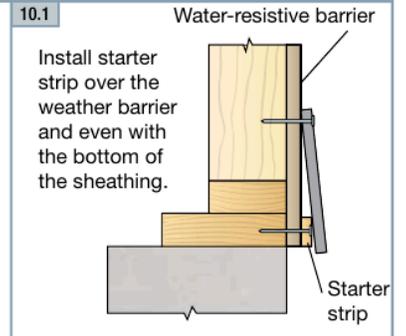


Installation of HardiePlank® Lap Siding

INSTALL A STARTER STRIP

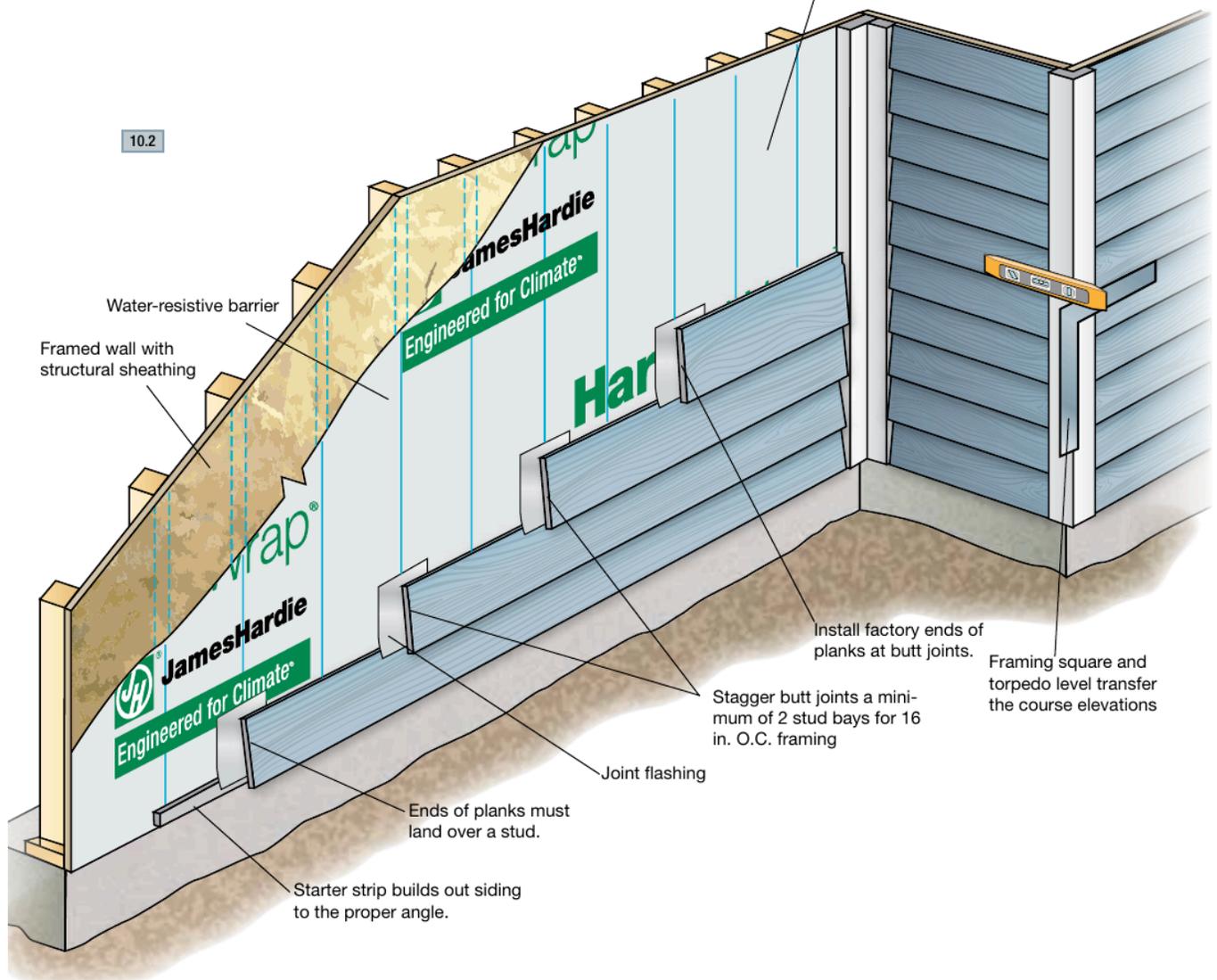
HardiePlank® lap siding requires a starter strip beneath the first course to set it on the proper angle and to create a proper drip edge at the bottom of the siding. Starter strips are easily made by ripping 1¼ in. pieces of HardiePlank siding from full or partial planks.

The bottom of the starter strip should be installed even with the bottom of the mudsill or the bottom edge of the sheathing. The strip must be installed over the water-resistive barrier, but occasional gaps should be left in the starter strip to allow any accumulated moisture behind the siding to drain away safely.



TIP: For accurate fastening, snap vertical chalk lines on the water-resistive barrier at the center of every stud location.

OVERVIEW OF HARDIEPLANK LAP SIDING



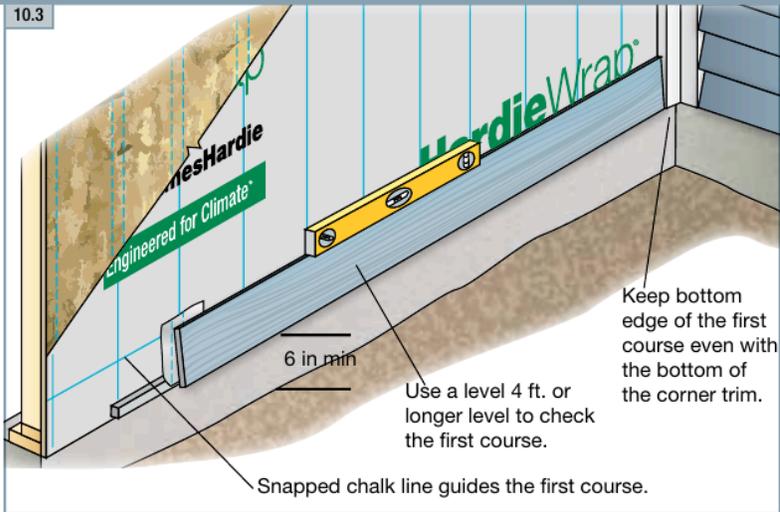
INSTALLING THE PLANKS

The first course of HardiePlank® siding is critical to the proper installation of the plank on the rest of the building. The first course should start at the lowest point of the house and within required clearances. Special attention should be made to ensure that it's straight and level. Attention should also be paid to staggering any butt joints in the planks so that the installation is attractive while making efficient use of material.

1. Use a level (4 ft. or longer) or chalked level line to be sure that the first course is level. As installation proceeds up the wall, periodically check the level and straightness of the courses. When correcting for flatness over products such as exterior insulation, use drywall shims. It is good practice to snap a chalk line every 3 to 5 courses to keep the planks straight and level.

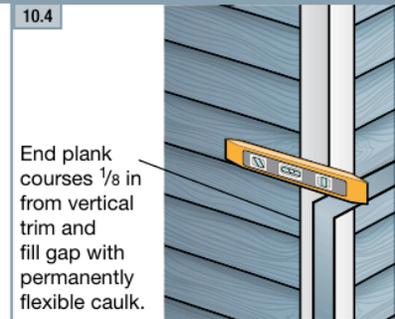
2. Position the bottom edge of the first course of siding a minimum ¼ in below the edge of the starter strip (maintain required clearances) and secure.
3. Run the siding to the HardieTrim® board leaving a 1/8 in. gap between the siding and trim.

The bottom of the siding should be kept even with the bottom of the trim, or if desired, the trim may extend below the bottom of the siding. But the siding should never hang below the trim. ***When installing the first course make sure ground clearances are in accordance with James Hardie requirements and those of local codes.**



PLANK ALIGNMENT AT CORNERS

For the best looking installation, make sure that the heights of the plank courses match on both sides of a corner. Use a framing square, speed square or a level to match up the plank heights. Check every few courses to make sure proper heights are being maintained.

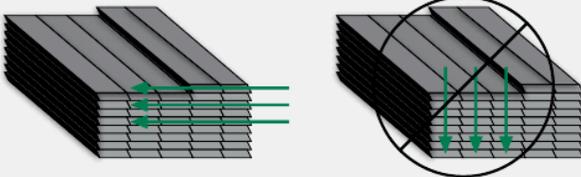


HANDLING

IMPORTANT: To prevent damage to the drip edge, extra care should be taken when removing planks from the pallet, while handling, and when installing with a lap gauge. Planks are interlocked together on the pallet, therefore they should be removed from the pallet horizontally (side to side) to allow planks to unlock themselves from one another.

Pull from across the stack

Do not go down the stack



TIP: When taking planks from the pallet installation, avoid repeating the texture pattern by working across the pallet. Two to four planks can be removed from a stack at one time. But then material should be taken from adjacent stacks, again working across the pallet. Texture repeat is typically a concern on large walls with few breaks such as windows or doors.

Installation of HardiePlank® Lap Siding (cont.)

BLIND NAILING (nailing through top of plank)

Blind nailing is recommended for installing any type of HardiePlank® lap siding including ColorPlus® siding. With blind nailing, each course covers the fasteners on the course below, which provides a better looking installation.

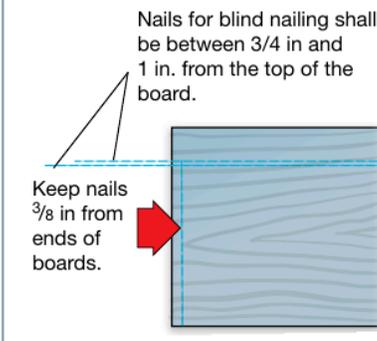
For blind nailing HardiePlank lap siding, James Hardie recommends driving fasteners 1 in. from the top edge of the plank. Additionally fasteners should be

placed no closer than 3/8 in from the ends of the plank.

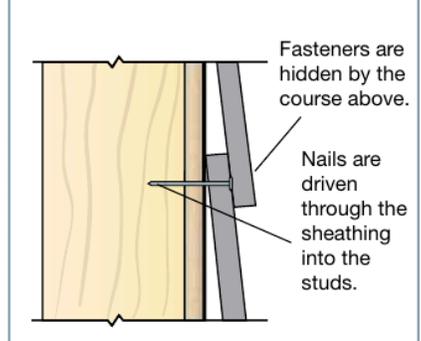
HardiePlank® HZ5® Lap Siding is manufactured with a nail line that should be used as a guide for proper nail placement when blind nailing. This nail line should not be used as a lap line.

Avoid placing fasteners near the top edge of the plank. This practice, called “high nailing”, may lead to loose planks, unwanted gaps or rattling. **Pin-backed corners may be done for aesthetic purposes only. Finish nails are recommended for pin-backs. Headed siding nails are allowed. Place pin-backs no closer than 1 in. from plank ends & 3/4 in. from plank edge into min. 3/8 in. wood structural panel. Pin-backs are not a substitute for blind or face nailing**

10.5 Blind nailing measurements



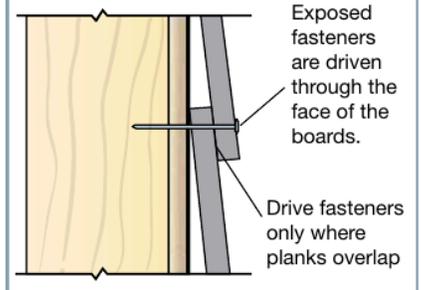
10.6 Blind nailing



FACE NAILING (nailing through the overlap at the bottom of the plank)

Although blind nailing is recommended by James Hardie, face nailing may be required for certain installations including: installations in high wind areas, fastening into OSB or equivalent sheathing without penetrating a stud, or when dictated by specific building codes. Refer to Appendix D for related code matters.

10.7 Face nailing



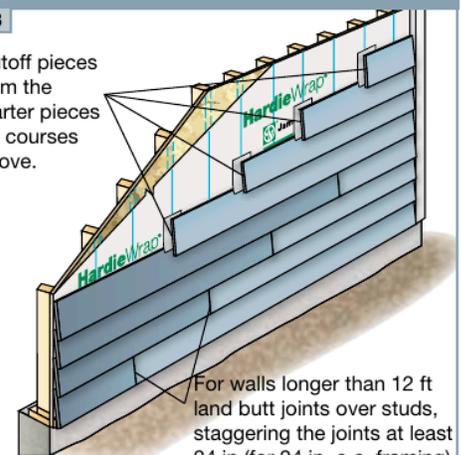
STAGGERING THE BUTT JOINTS

For walls longer than 12 ft, it is necessary to butt joint additional lengths of HardiePlank siding. These butt joints should be staggered to avoid noticeable patterns, which is determined by the placement of the first course. Butt joints between consecutive courses should be spaced apart by at least two stud bays for 16 in, o.c. framing or one bay for 24 in. o.c. framing.

While random placement of the planks is usually the most aesthetically pleasing, a progressive stagger pattern can make the job easier and faster without the pattern becoming too noticeable. With this strategy, the cut off piece for one course becomes the starter piece for a course above, making efficient use of materials and ensuring that all butt joints land on studs. The pattern can be modified for different stud placement.

10.8

Cutoff pieces form the starter pieces for courses above.



JOINT FLASHING

One or more of the following joint treatment options are required by code (as referenced 2009 IRC R703.10.2)

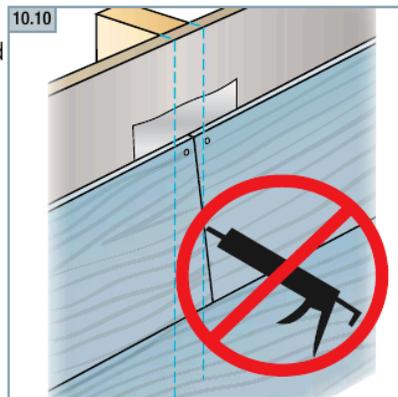
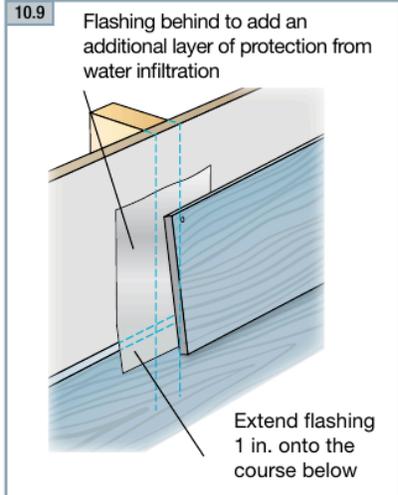
- A. Joint Flashing (James Hardie recommended)
- B. Caulking* (Caulking is not recommended for ColorPlus for aesthetic reasons as the Caulking and ColorPlus will weather differently. For the same reason, do not caulk nail heads on ColorPlus products.)
- C. "H" jointer cover

Flashing behind butt joints provides an extra level of protection against the entry of water at the joint. James Hardie recommends 6 in. wide flashing that overlaps the course below by 1 in. Some local building codes may require different size flashing.

Joint-flashing material must be durable, waterproof materials that do not react with cement products. Examples of suitable material include finished coil stock and code compliant water-resistive barriers. Other products may also be suitable.

TIP: Joint flashing can be quickly and easily made by cutting a 6 in. wide section off a roll of housewrap. Tape the roll tightly at the cut mark and cut the section off using a miter saw with a carbide blade. Individual sheets then can be cut to length with a utility knife.

TIP: Use light-colored joint flashing when using light-colored ColorPlus lap siding or other siding with a light-colored finish. Dark-color joint flashings should be used on siding with dark finishes.

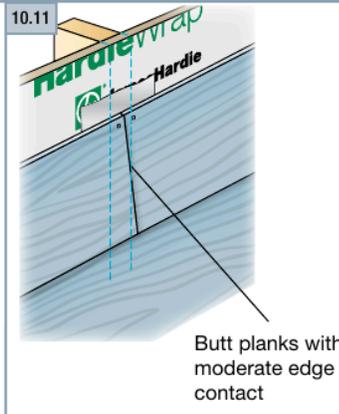


Caulking at HardiePlank lap siding butt joints is not recommended for ColorPlus for aesthetic reasons as the caulking and ColorPlus will weather differently. For the same reason, do not caulk exposed nail heads. Refer to the ColorPlus touch-up section for details

JOINT PLACEMENT AND TREATMENT

Butt joints in HardiePlank lap siding should always land on a stud. Butt joints between studs are not recommended and should be avoided. Whenever possible, factory-finished ends should be used at butt joints.

Place cut ends where the siding meets a corner, door, window trim, or other break in the wall where the joint is to be caulked. If cut ends are used in a butt joint between planks, James Hardie requires sealing cut ends for all products. For ColorPlus products, use the color-matched edge coater to seal the cut end.



COLORPLUS® TIP: When installing HardiePlank lap siding with ColorPlus Technology, position the plank in the immediate area where the plank is to be fastened. Do not place the plank on the course below and slide into position. Doing so may scuff or scratch the ColorPlus finish on the installed piece.

Installation of HardiePlank® Lap Siding (cont.)

CONTINUING THE INSTALLATION

Once the initial course of HardiePlank® siding is fastened to the wall, continue installing successive courses with full 12 ft. pieces (follow the stagger pattern for longer walls), or until a window, door or other opening interrupts the course (fig 10.12). Notch planks as needed to fit around windows and doors. Again, be sure to seal all cut edges. Avoid placing butt joints directly above or below windows or above doors. Separate the joint from the opening by at least one course of siding.

Where butt joints land on a stud, make sure there is enough stud space for plank on both sides of the joint to land properly. Optimally both sides of a butt joint should land in the middle of a stud with 3/4 in landing space for each side. The minimum stud space for a plank to land is 3/8 in

Pay special attention to window, doors, and corners that have been trimmed before the siding goes on. Vertical trim boards may cover the king studs beside windows or doors, or they may cover up corner studs leaving no room for nailing the siding. In these places add extra studs as needed.

If corners are trimmed with HardieTrim® 5/4, 4/4 boards, it may be necessary to measure and cut the first pieces of siding to make sure the butt joints land on studs.

10.12 Planking around windows

Add an extra stud if necessary for nailing the ends of the planks.



Notch plank around window trim and flashing.

Keep butt joints more than one course away from top of window.



COLORPLUS TIP: HardiePlank lap siding with ColorPlus Technology is shipped with a protective laminate slip sheet, which should be left in place during cutting and fastening to reduce marring and scratching. The sheet should be removed immediately after each plank is installed.



INSTALLING HARDIEPLANK® SIDING ON GABLE WALLS

Siding gable walls can be challenging, and some of the keys to siding gable walls efficiently are determining the angle or pitch of the roof, properly staging materials, and ensuring that the plank lengths are measured accurately.

To estimate the amount of siding needed to complete a gable end, use the estimating tools located in Appendix C.

Stage enough material on the pump jacks or scaffolding to complete the gable end, but take care not to overload the staging. When possible, a cut table should be located on the pump jacks or scaffolding, which frees up crew members to work on other walls.

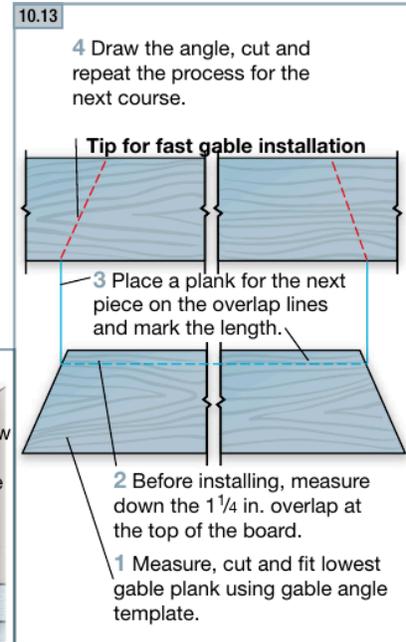
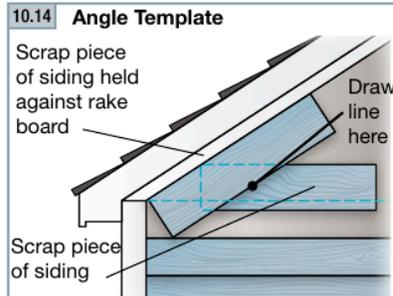
To cut planks for the gable:

1. Tack up a small scrap piece of siding where the first gable course is going.
2. Hold a second small piece of siding against the eave or rake board.
3. Trace the angle onto the scrap.
4. Cut that line and label the scrap as the template for the gable angle. The template can then be used to transfer the angle onto the larger pieces for cutting and installation.
5. Periodically check the angle as you progress up the wall.

The quickest way to measure and cut consecutive courses of siding for a gable is to work off the previous piece.

1. Cut and fit the lowest course of siding.
2. Before installing, lay it flat and measure down 1 1/4 in. from the top edge of the plank for the course overlap. Make a mark on both ends.
3. Set a piece of uncut siding on top of the first piece, aligning the bottom edge with the overlap marks. Transfer the length directly to the uncut piece.
4. Draw the gable angle with the template, cut the angle and then repeat the process for the next course.

TIP: Stainless steel fasteners are recommended when installing James Hardie® products.



HARDIEPLANK® SIDING FASTENER SPECIFICATIONS

The Fastener Specifications table shows fastener options for a variety of different nailing substrates. Please refer to the applicable ESR report online (see back page) to determine which fastener meets your wind load design criteria.

| Fastener Substrate | | Approved Fastener | Fastener Type |
|---|------------|---|--|
| wood studs | blind nail | 16 in o.c. | ② .113 in x .267 in x 2 in — 6D common |
| | | 24 in o.c. | ③ ⑨ ⑬ .093 in x .222 in x 2 in — 6D siding nail |
| | face nail | 16 in o.c. | ② ⑤ No 11ga 1.25 in long — roofing nail |
| | | 24 in o.c. | ② ⑤ Ribbed Bugle-Head No. 8 .323 in x 1.625 in — screws |
| steel studs* | blind nail | 16 in o.c. | ⑧ ⑬ Ribbed Wafer-Head No. 8 (.375 in x 1.25 in) |
| | | 24 in o.c. | ⑫ [AKN-100] .100 in x .25 in x 1.5 in — ET&F |
| | face nail | 16 in o.c. | ⑭ [AGS-100] .100 in x .313 in x 1.5 in — screws |
| | | 24 in o.c. | ⑦ ⑫ — masonry nail [ASTM C-90] ASM-144-125 (P/C) .30 in x .14 in x 1.25 in |
| Direct to Masonry | | ⑭ .113 in x .260 in x 2.375 in — 8D common | |
| 7/16 in OSB or equivalent (face nailed) | | ④ No 11ga 1.75 in long — roofing nail | |
| | | ④ .091 in. x .221 in. x 1.5 in — 4D siding nail | |

*When blind fastening 9.5 in or wider product onto steel studs, use screws.

● indicates recommended fasteners



IMPORTANT: FAILURE TO FOLLOW JAMES HARDIE WRITTEN INSTALLATION INSTRUCTIONS AND COMPLY WITH APPLICABLE BUILDING CODES MAY VIOLATE LOCAL LAWS, AFFECT BUILDING ENVELOPE PERFORMANCE AND MAY AFFECT WARRANTY COVERAGE. FAILURE TO COMPLY WITH ALL HEALTH AND SAFETY REGULATIONS WHEN CUTTING AND INSTALLING THIS PRODUCT MAY RESULT IN PERSONAL INJURY. BEFORE INSTALLATION, CONFIRM YOU ARE USING THE CORRECT HARDIEZONE® PRODUCT INSTRUCTIONS BY VISITING HARDIEZONE.COM OR CALL 1-866-942-7343 (866-9-HARDIE)

STORAGE & HANDLING:

Store flat and keep dry and covered prior to installation. Installing siding wet or saturated may result in shrinkage at butt joints. Carry planks on edge. Protect edges and corners from breakage. James Hardie is not responsible for damage caused by improper storage and handling of the product.



⚠️ CUTTING INSTRUCTIONS

OUTDOORS

- Position cutting station so that airflow blows dust away from the user and others near the cutting area.
- Cut using one of the following methods:
 - Best: Circular saw equipped with a HardieBlade® saw blade and attached vacuum dust collection system. Shears (manual, pneumatic or electric) may also be used, not recommended for products thicker than 7/16 in.
 - Better: Circular saw equipped with a dust collection feature (e.g. Roan® saw) and a HardieBlade saw blade.
 - Good: Circular saw equipped with a HardieBlade saw blade.

INDOORS

- DO NOT grind or cut with a power saw indoors. Cut using shears (manual, pneumatic or electric) or the score and snap method, not recommended for products thicker than 7/16 in.
- DO NOT dry sweep dust; use wet dust suppression or vacuum to collect dust.
 - For maximum dust reduction, James Hardie recommends using the "Best" cutting practices. Always follow the equipment manufacturer's instructions for proper operation.
 - For best performance when cutting with a circular saw, James Hardie recommends using HardieBlade® saw blades.
 - Go to jameshardiepros.com for additional cutting and dust control recommendations.

IMPORTANT: The Occupational Safety and Health Administration (OSHA) regulates workplace exposure to silica dust. For construction sites, OSHA has deemed that cutting fiber cement with a circular saw having a blade diameter less than 8 inches and connected to a commercially available dust collection system per manufacturer's instructions results in exposures below the OSHA Permissible Exposure Limit (PEL) for respirable crystalline silica, without the need for additional respiratory protection.

If you are unsure about how to comply with OSHA silica dust regulations, consult a qualified industrial hygienist or safety professional, or contact your James Hardie technical sales representative for assistance. James Hardie makes no representation or warranty that adopting a particular cutting practice will assure your compliance with OSHA rules or other applicable laws and safety requirements.

IMPORTANT: To prevent damage to the drip edge, extra care should be taken when removing planks from the pallet, while handling, and when installing with a lap gauge. Please see additional handling requirements on page 4.

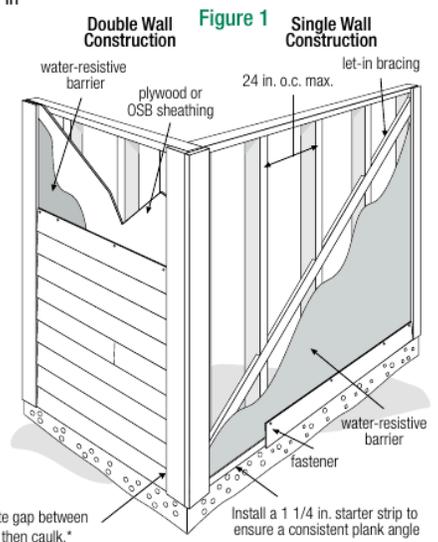
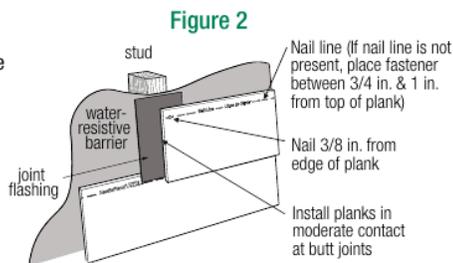
GENERAL REQUIREMENTS:

- HardiePlank® lap siding can be installed over braced wood or steel studs, 20 gauge (33 mils) minimum to 16 gauge (54 mils) maximum, spaced a maximum of 24 in o.c. or directly to minimum 7/16 in thick OSB sheathing. See General Fastening Requirements. Irregularities in framing and sheathing can mirror through the finished application. Correct irregularities before installing siding.
- Information on installing James Hardie products over non-nailable substrates (ex: gypsum, foam, etc.) can be located in JH Tech Bulletin 19 at www.jameshardie.com
- A water-resistive barrier is required in accordance with local building code requirements. The water-resistive barrier must be appropriately installed with penetration and junction flashing in accordance with local building code requirements. James Hardie will assume no responsibility for water infiltration. James Hardie does manufacture HardieWrap® Weather Barrier, a non-woven non-perforated housewrap¹, which complies with building code requirements.
- Adjacent finished grade must slope away from the building in accordance with local building codes - typically a minimum of 6 in. in the first 10 ft..
- Do not use HardiePlank lap siding in Fascia or Trim applications.
- Do not install James Hardie products, such that they may remain in contact with standing water.
- HardiePlank lap siding may be installed on flat vertical wall applications only.
- For larger projects, including commercial and multi-family projects, where the span of the wall is significant in length, the designer and/or architect should take into consideration the coefficient of thermal expansion and moisture movement of the product in their design. These values can be found in the Technical Bulletin "Expansion Characteristics of James Hardie® Siding Products" at www.jameshardie.com.
- James Hardie Building Products provides installation /wind load information for buildings with a maximum mean roof height of 85 feet. For information on installations above 60 feet, please contact JH technical support.

INSTALLATION: JOINT TREATMENT

One or more of the following joint treatment options are required by code (as referenced 2009 IRC R703.10.2)

- Joint Flashing (James Hardie recommended)
- Caulking* (Caulking is not recommended for ColorPlus for aesthetic reasons as the Caulking and ColorPlus will weather differently. For the same reason, do not caulk nail heads on ColorPlus products.)
- "H" jointer cover



Note: Field painting over caulking may produce a sheen difference when compared to the field painted PrimePlus. *Refer to Caulking section in these instructions.
¹For additional information on HardieWrap® Weather Barrier, consult James Hardie at 1-866-4Hardie or www.hardiewrap.com





CLEARANCE AND FLASHING REQUIREMENTS

Figure 3
Roof to Wall

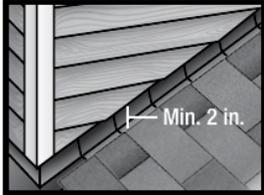


Figure 4
Horizontal Flashing

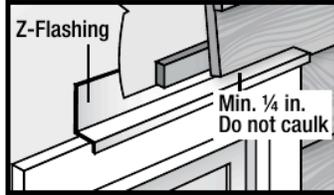


Figure 5
Kickout Flashing

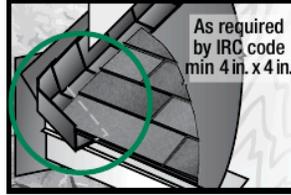


Figure 6
Slabs, Path, Steps to Siding

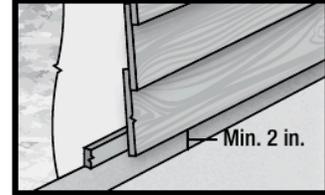


Figure 7
Deck to Wall

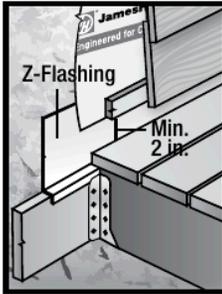


Figure 8
Ground to Siding

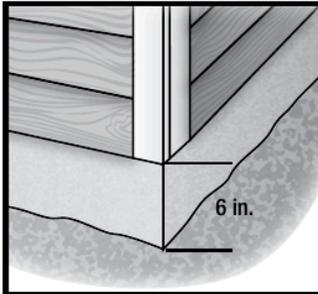


Figure 9
Gutter to Siding



Figure 10
Sheltered Areas

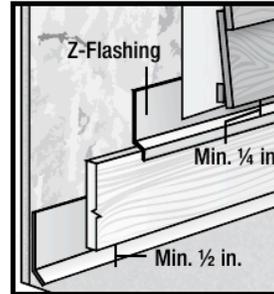


Figure 11
Mortar/Masonry

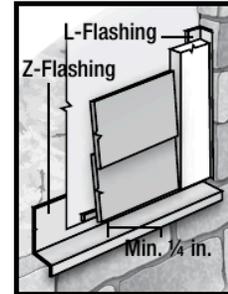


Figure 12
Drip Edge

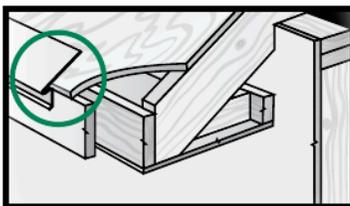


Figure 13
Block Penetration

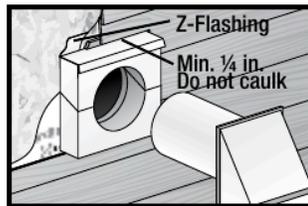


Figure 14
Valley/Shingle Extension



FASTENER REQUIREMENTS*

Refer to the applicable ESR report online to determine which fastener meets your wind load design criteria.

Blind Nailing is the preferred method of installation for HardiePlank® lap siding products. Face nailing should only be used where required by code for high wind areas and must not be used in conjunction with Blind nailing (Please see JH Tech bulletin 17 for exemption when doing a repair).

BLIND NAILING

Nails - Wood Framing

- Siding nail (0.09 in. shank x 0.221 in. HD x 2 in. long)
- 11ga. roofing nail (0.121 in. shank x 0.371 in. HD x 1.25 in. long)

Screws - Steel Framing

- Ribbed Wafer-head or equivalent (No. 8 x 1 1/4 in. long x 0.375 in. HD) Screws must penetrate 3 threads into metal framing.

Nails - Steel Framing

- ET & F Panelfast® nails or equivalent (0.10 in. shank x 0.313 in. HD x 1-1/2 in. long) Nails must penetrate minimum 1/4 in. into metal framing.

OSB minimum 7/16 in.

- Siding nail (0.09 in. shank x 0.215 in. HD x 1-1/2 in. long)
- Ribbed Wafer-head or equivalent (No. 8 x 1 5/8 in. long x 0.375 in. HD).

FACE NAILING

Nails - Wood Framing

- 6d (0.113 in. shank x 0.267 in. HD x 2 in. long)
- Siding nail (0.09" shank x 0.221" HD x 2" long)

Screws - Steel Framing

- Ribbed Bugle-head or equivalent (No. 8-18 x 1-5/8 in. long x 0.323 in. HD) Screws must penetrate 3 threads into metal framing.

Nails - Steel Framing

- ET & F pin or equivalent (0.10 in. shank x 0.25 in. HD x 1-1/2 in. long) Nails must penetrate minimum 1/4 in. into metal framing.

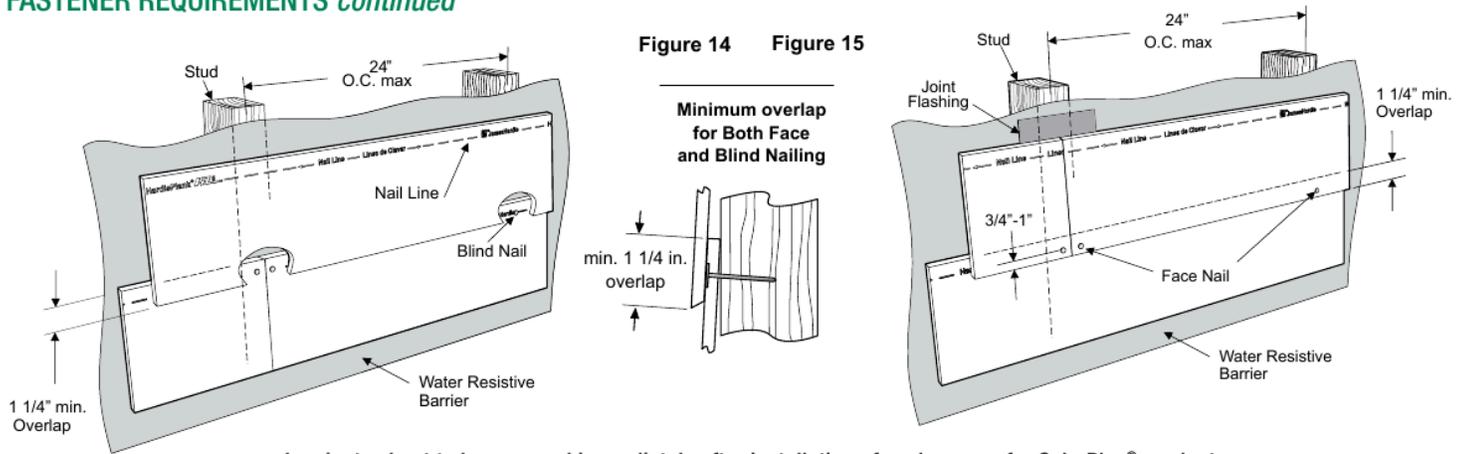
OSB minimum 7/16 in.

- Siding nail (0.09 in. shank x 0.221 in. HD x 1-1/2 in. long)

*Also see General Fastening Requirements; and when considering alternative fastening options refer to James Hardie's Technical Bulletin USTB 5 - Fastening Tips for HardiePlank Lap Siding.



FASTENER REQUIREMENTS *continued*



Laminate sheet to be removed immediately after installation of each course for ColorPlus® products.

Pin-backed corners may be done for aesthetic purposes only. Finish nails are recommended for pin-backs. Headed siding nails are allowed. Place pin-backs no closer than 1 in. from plank ends and 3/4 in. from plank edge into min. 3/8 in. wood structural panel. Pin-backs are not a substitute for blind or face nailing.

GENERAL FASTENING REQUIREMENTS

Fasteners must be corrosion resistant, galvanized, or stainless steel. Electro-galvanized are acceptable but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. James Hardie is not responsible for the corrosion resistance of fasteners. Stainless steel fasteners are recommended when installing James Hardie® products near the ocean, large bodies of water, or in very humid climates.

Manufacturers of ACQ and CA preservative-treated wood recommend spacer materials or other physical barriers to prevent direct contact of ACQ or CA preservative-treated wood and aluminum products. Fasteners used to attach HardieTrim Tabs to preservative-treated wood shall be of hot dipped zinc-coated galvanized steel or stainless steel and in accordance to 2009 IRC R317.3 or 2009 IBC 2304.9.5

- Consult applicable product evaluation or listing for correct fasteners type and placement to achieve specified design wind loads.
- NOTE: Published wind loads may not be applicable to all areas where Local Building Codes have specific jurisdiction. Consult James Hardie Technical Services if you are unsure of applicable compliance documentation.
- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space).
- NOTE: Whenever a structural member is present, HardiePlank should be fastened with even spacing to the structural member. The tables allowing direct to OSB or plywood should only be used when traditional framing is not available.

CUT EDGE TREATMENT

Caulk, paint or prime all field cut edges. James Hardie touch-up kits are required to touch-up ColorPlus products.

CAULKING

For best results use an Elastomeric Joint Sealant complying with ASTM C920 Grade NS, Class 25 or higher or a Latex Joint Sealant complying with ASTM C834. Caulking/Sealant must be applied in accordance with the caulking/sealant manufacturer's written instructions.

Note: some caulking manufacturers do not allow "tooling".

PAINTING

DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie® products. Factory-primed James Hardie products must be painted within 180 days of installation. 100% acrylic topcoats are recommended. Do not paint when wet. For application rates refer to paint manufacturers specifications. Back-rolling is recommended if the siding is sprayed.

PNEUMATIC FASTENING

James Hardie products can be hand nailed or fastened with a pneumatic tool. Pneumatic fastening is highly recommended. Set air pressure so that the fastener is driven snug with the surface of the siding. A flush mount attachment on the pneumatic tool is recommended. This will help control the depth the nail is driven. If setting the nail depth proves difficult, choose a setting that under drives the nail. (Drive under driven nails snug with a smooth faced hammer - Does not apply for installation to steel framing).

| | | | | |
|---|--|--|--|---|
| <p>SNUG FLUSH</p> | | | | |
| <p>DO NOT</p> <p>UNDER DRIVE</p> | | <p>DO NOT</p> <p>OVER DRIVE SLANT</p> | | <p>DO NOT USE</p> <p>ALUMINUM FASTENERS</p> |
| <p>IF, THEN</p> <p>WOOD FRAME</p> <p>HAMMER FLUSH</p> | | <p>IF, THEN ADDITIONAL NAIL</p> <p>STEEL FRAME</p> <p>REMOVE & REPLACE</p> | | <p>DO NOT USE</p> <p>CLIPPED HEAD NAILS</p> |
| | | <p>FACE NAIL</p> <p>COUNTERSINK & FILL</p> | | <p>DO NOT USE</p> <p>STAPLES</p> |



COLORPLUS® TECHNOLOGY CAULKING, TOUCH-UP & LAMINATE

- Care should be taken when handling and cutting James Hardie ColorPlus® products. During installation use a wet soft cloth or soft brush to gently wipe off any residue or construction dust left on the product, then rinse with a garden hose.
- Touch up nicks, scrapes and nail heads using the ColorPlus® Technology touch-up applicator. Touch-up should be used sparingly. If large areas require touch-up, replace the damaged area with new HardiePlank® lap siding with ColorPlus® Technology.
- Laminate sheet must be removed immediately after installation of each course.
- Terminate non-factory cut edges into trim where possible, and caulk. Color matched caulks are available from your ColorPlus® product dealer.
- Treat all other non-factory cut edges using the ColorPlus Technology edge coaters, available from your ColorPlus product dealer.

Note: James Hardie does not warrant the usage of third party touch-up or paints used as touch-up on James Hardie ColorPlus products.

Problems with appearance or performance arising from use of third party touch-up paints or paints used as touch-up that are not James Hardie touch-up will not be covered under the James Hardie ColorPlus Limited Finish Warranty.

COVERAGE CHART/ESTIMATING GUIDE

Number of 12 ft. planks, does not include waste

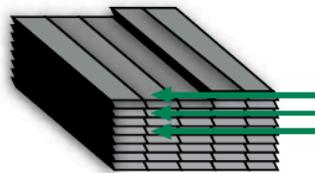
| COVERAGE AREA LESS OPENINGS | HARDIEPLANK® LAP SIDING WIDTH | | | | | | | | | |
|-----------------------------------|-------------------------------|--------------------------|------------|------------|----------------|------------|------------|------------|----------------|--------------|
| | SQ (1 SQ = 100 sq.ft.) | 5 1/4 (exposure) 4 | 6 1/4 5 | 7 1/4 6 | 7 1/2 6 1/4 | 8 6 3/4 | 8 1/4 7 | 9 1/4 8 | 9 1/2 8 1/4 | 12 10 3/4 |
| 1 | | 25 | 20 | 17 | 16 | 15 | 14 | 13 | 13 | 9 |
| 2 | | 50 | 40 | 33 | 32 | 30 | 29 | 25 | 25 | 19 |
| 3 | | 75 | 60 | 50 | 48 | 44 | 43 | 38 | 38 | 28 |
| 4 | | 100 | 80 | 67 | 64 | 59 | 57 | 50 | 50 | 37 |
| 5 | | 125 | 100 | 83 | 80 | 74 | 71 | 63 | 63 | 47 |
| 6 | | 150 | 120 | 100 | 96 | 89 | 86 | 75 | 75 | 56 |
| 7 | | 175 | 140 | 117 | 112 | 104 | 100 | 88 | 88 | 65 |
| 8 | | 200 | 160 | 133 | 128 | 119 | 114 | 100 | 100 | 74 |
| 9 | | 225 | 180 | 150 | 144 | 133 | 129 | 113 | 113 | 84 |
| 10 | | 250 | 200 | 167 | 160 | 148 | 143 | 125 | 125 | 93 |
| 11 | | 275 | 220 | 183 | 176 | 163 | 157 | 138 | 138 | 102 |
| 12 | | 300 | 240 | 200 | 192 | 178 | 171 | 150 | 150 | 112 |
| 13 | | 325 | 260 | 217 | 208 | 193 | 186 | 163 | 163 | 121 |
| 14 | | 350 | 280 | 233 | 224 | 207 | 200 | 175 | 175 | 130 |
| 15 | | 375 | 300 | 250 | 240 | 222 | 214 | 188 | 188 | 140 |
| 16 | | 400 | 320 | 267 | 256 | 237 | 229 | 200 | 200 | 149 |
| 17 | | 425 | 340 | 283 | 272 | 252 | 243 | 213 | 213 | 158 |
| 18 | | 450 | 360 | 300 | 288 | 267 | 257 | 225 | 225 | 167 |
| 19 | | 475 | 380 | 317 | 304 | 281 | 271 | 238 | 238 | 177 |
| 20 | | 500 | 400 | 333 | 320 | 296 | 286 | 250 | 250 | 186 |

This coverage chart is meant as a guide. Actual usage is subject to variables such as building design. James Hardie does not assume responsibility for over or under ordering of product.

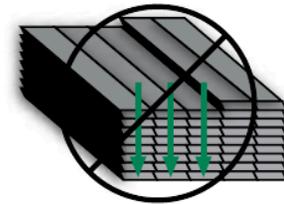
ADDITIONAL HANDLING REQUIREMENTS

IMPORTANT: To prevent damage to the drip edge, extra care should be taken when removing planks from the pallet, while handling, and when installing with a lap gauge. Planks are interlocked together on the pallet, therefore they should be removed from the pallet horizontally (side to side) to allow planks to unlock themselves from one another.

Pull from across the stack



Do not go down the stack



HS11117 P4/4 09/19

SILICA WARNING **DANGER:** May cause cancer if dust from product is inhaled. Causes damage to lungs and respiratory system through prolonged or repeated inhalation of dust from product. Refer to the current product Safety Data Sheet before use. The hazard associated with fiber cement arises from crystalline silica present in the dust generated by activities such as cutting, machining, drilling, routing, sawing, crushing, or otherwise abrading fiber cement, and when cleaning up, disposing of or moving the dust. When doing any of these activities in a manner that generates dust you must (1) comply with the OSHA standard for silica dust and/or other applicable law, (2) follow James Hardie cutting instructions to reduce or limit the release of dust; (3) warn others in the area to avoid breathing the dust; (4) when using mechanical saw or high speed cutting tools, work outdoors and use dust collection equipment; and (5) if no other dust controls are available, wear a dust mask or respirator that meets NIOSH requirements (e.g. N-95 dust mask). During clean-up, use a well maintained vacuum and filter appropriate for capturing fine (respirable) dust or use wet clean-up methods - never dry sweep.

WARNING: This product can expose you to chemicals including respirable crystalline silica, which is known to the State of California to cause cancer. For more information go to P65Warnings.ca.gov.

RECOGNITION: In accordance with ICC-ES Evaluation Report ESR-2290, HardiePlank® lap siding is recognized as a suitable alternate to that specified in the 2006, 2009, 2012 & 2015 International Residential Code for One and Two-Family Dwellings, and the 2006, 2009, 2012 & 2015 International Building Code. HardiePlank lap siding is also recognized for application in the following: City of Los Angeles Research Report No. 24862, State of Florida Product Approval FL#13192, Miami-Dade County Florida NOA No. 17-0406.06, U.S. Dept. of HUD Materials Release 1263f, Texas Department of Insurance Product Evaluation EC-23, City of New York MEA 223-93-M, and California DSA PA-019. These documents should also be consulted for additional information concerning the suitability of this product for specific applications.

EXTERIOR WALL PANEL

Fiber cement lap siding boards, panel...

Manufacturer: James Hardie Building Products, Inc.
Style/Series: HardiePlank Lap Siding

Sales Rep

Primary

Email: No.Email.415
Office Phone: 888-542-7343

Attributes

Fiber cement lap siding boards, panels, trim, fascia and accessories

Type: Fiber cement board siding

DIMENSIONS

Length: 12'
Height: 7-1/4"
Thickness: 5/16"

MATERIAL / FINISH

Color: Pearl Gray
Finish: Smooth
Material Composition: Fiber cement panels manufactured from a pressed, stamped, and autoclaved mix of Portland cement, fly ash, silica, recycled rejects, and wood fiber bundles

PERFORMANCE

Fire/Smoke Rating: Surface Burning (ASTM E-84): Flame Spread: 0, Smoke Developed: 5
Quality Standards: ASTM C1186, Type A, Grade II "Standard Specification for Flat Non-Asbestos Fiber-Cement Sheets"
Structural Performance: Wet Flexural Strength: lower limit: 1015 psi
Thermal Performance: R = 0.48

MISCELLANEOUS

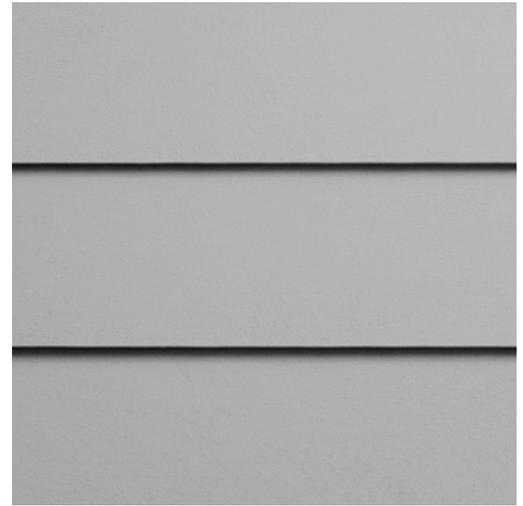
Lead Time: 10 weeks +
Warranty: 30 years
Eco-Feature(s) *as per manufacturer: Recycled content

CUSTOM FIELDS

Texture/Luster: Smooth

Notes

Horizontal joints: 1-1/4" overlap.
Fasteners: Corrosion resistant, galvanized, or stainless steel fasteners.
Sealant: Elastomeric joint sealant complying with ASTM C920 Grade



NS,
Class 25 or higher or a Latex joint sealant complying with ASTM
C834.
Caulk, paint or prime all field cut edges.

Special Instructions

Refer to manufacturer's literature for products approved for use in
climate zone HZ5 or zone HZ10.
Factory-primed products must be painted within 180 days of
installation. 100% acrylic topcoats are recommended; do not use
stain, oil/alkyd base paint, or powder coating.

HardiePlank® Lap Siding Product Description

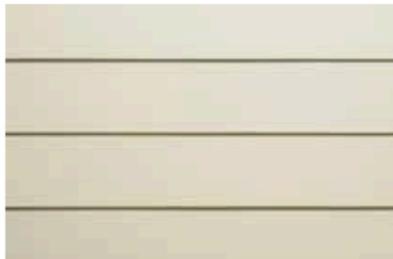
HardiePlank® lap siding is factory-primed fiber-cement lap siding available in a variety of styles and textures. Please see your local James Hardie® product dealer for product availability. HardiePlank lap siding comes in 12 ft. lengths. Nominal widths from 5 1/4 in. to 12 in. create a range of exposures from 4 in. to 10 3/4 in.

HardiePlank lap siding is also available with ColorPlus® Technology as one of James Hardie's prefinished products. ColorPlus® Technology is a factory applied, oven-baked finish available on a variety of James Hardie siding and trim products. See your local dealer for details and availability of products, colors, and accessories.

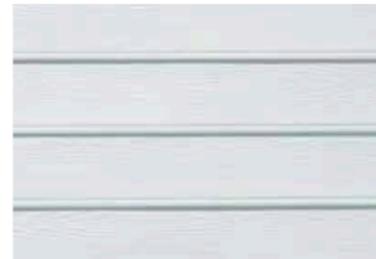
The HZ5® product line is right at home in climates with freezing temperatures, seasonal temperature variations, snow and ice. HZ5® boards are the result of our generational evolution of our time-tested products. We've evolved our substrate composition to be specifically designed to perform in conditions found in these climates. To ensure that its beauty matches its durability, we've engineered the surface for higher performance, giving it superior paint adhesion and moisture resistance. In addition, we've added a drip edge to the HardiePlank® HZ5® lap siding product to provide improved water management in conditions specific to HZ5® climates.



Select Cedarmill®



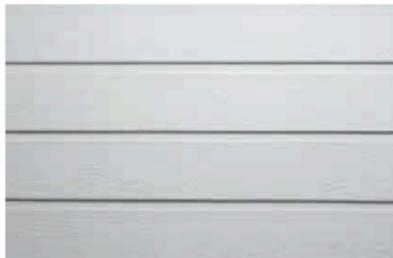
Smooth



Beaded Cedarmill®



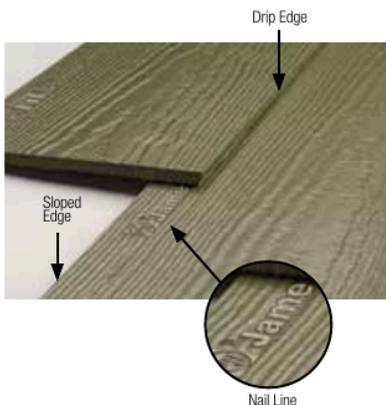
Beaded Smooth



Custom Colonial Roughsawn®



Custom Colonial Smooth®

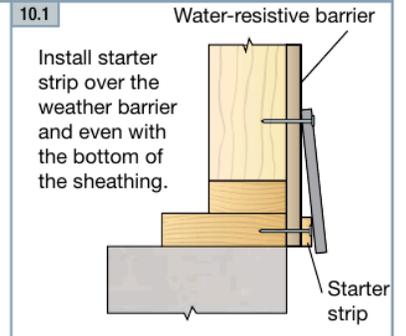


Installation of HardiePlank® Lap Siding

INSTALL A STARTER STRIP

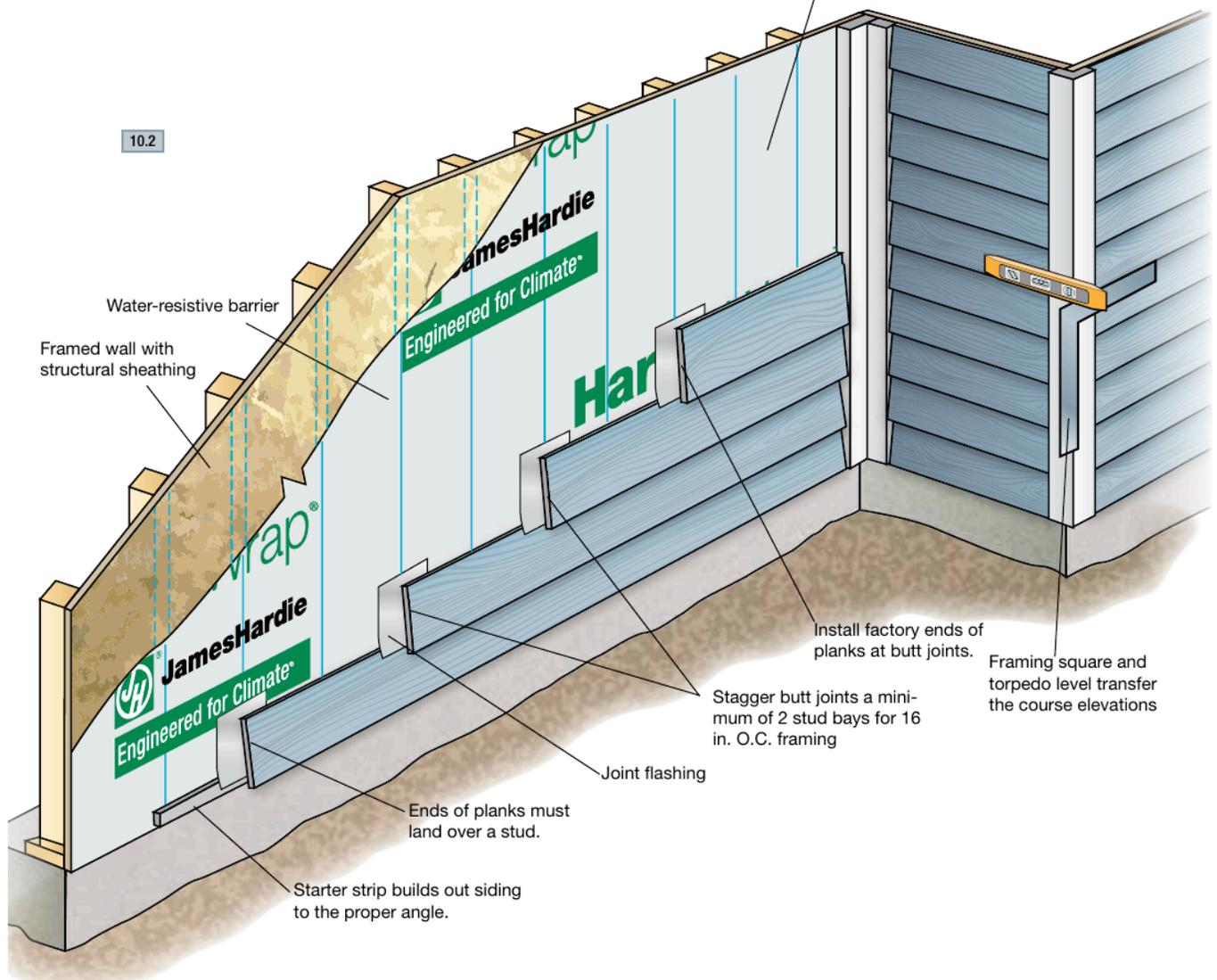
HardiePlank® lap siding requires a starter strip beneath the first course to set it on the proper angle and to create a proper drip edge at the bottom of the siding. Starter strips are easily made by ripping 1¼ in. pieces of HardiePlank siding from full or partial planks.

The bottom of the starter strip should be installed even with the bottom of the mudsill or the bottom edge of the sheathing. The strip must be installed over the water-resistive barrier, but occasional gaps should be left in the starter strip to allow any accumulated moisture behind the siding to drain away safely.



TIP: For accurate fastening, snap vertical chalk lines on the water-resistive barrier at the center of every stud location.

OVERVIEW OF HARDIEPLANK LAP SIDING



INSTALLING THE PLANKS

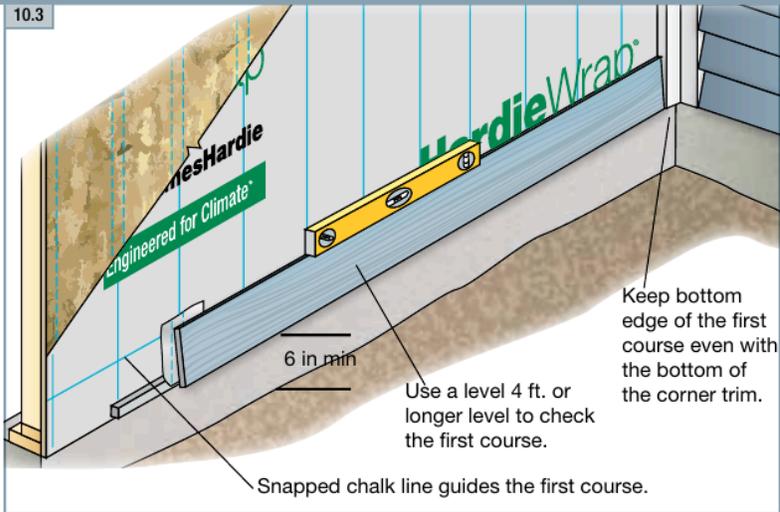
The first course of HardiePlank® siding is critical to the proper installation of the plank on the rest of the building. The first course should start at the lowest point of the house and within required clearances. Special attention should be made to ensure that it's straight and level. Attention should also be paid to staggering any butt joints in the planks so that the installation is attractive while making efficient use of material.

1. Use a level (4 ft. or longer) or chalked level line to be sure that the first course is level. As installation proceeds up the wall, periodically check the level and straightness of the courses. When correcting for flatness over products such as exterior insulation, use drywall shims. It is good practice to snap a chalk line every 3 to 5 courses to keep the planks straight and level.

2. Position the bottom edge of the first course of siding a minimum 1/4 in below the edge of the starter strip (maintain required clearances) and secure.

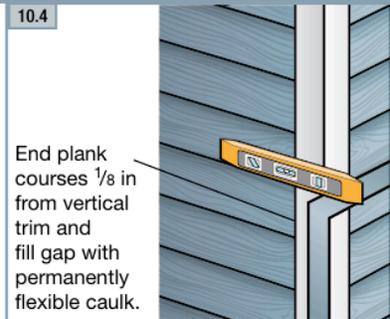
3. Run the siding to the HardieTrim® board leaving a 1/8 in. gap between the siding and trim.

The bottom of the siding should be kept even with the bottom of the trim, or if desired, the trim may extend below the bottom of the siding. But the siding should never hang below the trim. ***When installing the first course make sure ground clearances are in accordance with James Hardie requirements and those of local codes.**



PLANK ALIGNMENT AT CORNERS

For the best looking installation, make sure that the heights of the plank courses match on both sides of a corner. Use a framing square, speed square or a level to match up the plank heights. Check every few courses to make sure proper heights are being maintained.

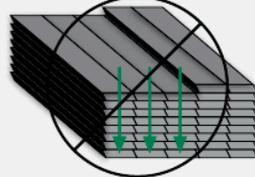
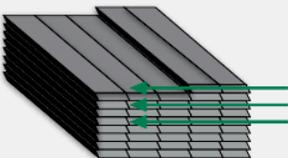


HANDLING

IMPORTANT: To prevent damage to the drip edge, extra care should be taken when removing planks from the pallet, while handling, and when installing with a lap gauge. Planks are interlocked together on the pallet, therefore they should be removed from the pallet horizontally (side to side) to allow planks to unlock themselves from one another.

Pull from across the stack

Do not go down the stack



TIP: When taking planks from the pallet installation, avoid repeating the texture pattern by working across the pallet. Two to four planks can be removed from a stack at one time. But then material should be taken from adjacent stacks, again working across the pallet. Texture repeat is typically a concern on large walls with few breaks such as windows or doors.

Installation of HardiePlank® Lap Siding (cont.)

BLIND NAILING (nailing through top of plank)

Blind nailing is recommended for installing any type of HardiePlank® lap siding including ColorPlus® siding. With blind nailing, each course covers the fasteners on the course below, which provides a better looking installation.

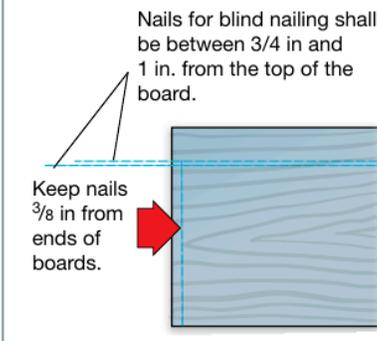
For blind nailing HardiePlank lap siding, James Hardie recommends driving fasteners 1 in. from the top edge of the plank. Additionally fasteners should be

placed no closer than 3/8 in from the ends of the plank.

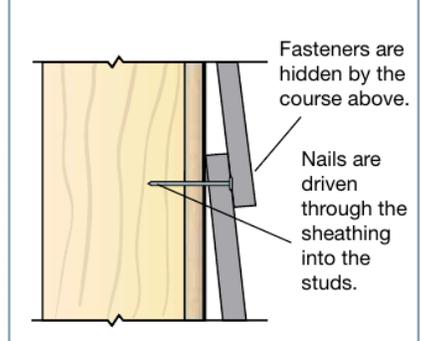
HardiePlank® HZ5® Lap Siding is manufactured with a nail line that should be used as a guide for proper nail placement when blind nailing. This nail line should not be used as a lap line.

Avoid placing fasteners near the top edge of the plank. This practice, called “high nailing”, may lead to loose planks, unwanted gaps or rattling. **Pin-backed corners may be done for aesthetic purposes only. Finish nails are recommended for pin-backs. Headed siding nails are allowed. Place pin-backs no closer than 1 in. from plank ends & 3/4 in. from plank edge into min. 3/8 in. wood structural panel. Pin-backs are not a substitute for blind or face nailing**

10.5 Blind nailing measurements



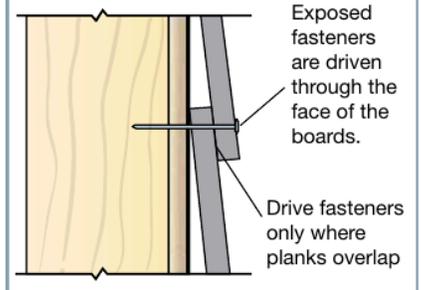
10.6 Blind nailing



FACE NAILING (nailing through the overlap at the bottom of the plank)

Although blind nailing is recommended by James Hardie, face nailing may be required for certain installations including: installations in high wind areas, fastening into OSB or equivalent sheathing without penetrating a stud, or when dictated by specific building codes. Refer to Appendix D for related code matters.

10.7 Face nailing



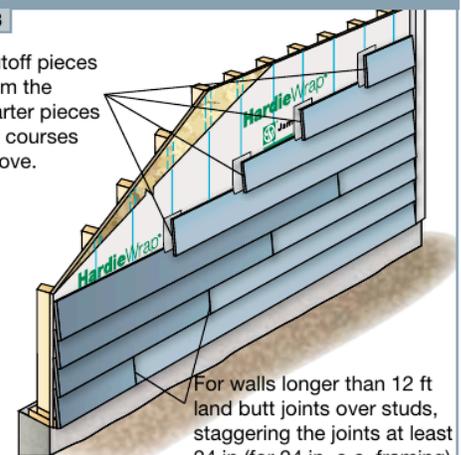
STAGGERING THE BUTT JOINTS

For walls longer than 12 ft, it is necessary to butt joint additional lengths of HardiePlank siding. These butt joints should be staggered to avoid noticeable patterns, which is determined by the placement of the first course. Butt joints between consecutive courses should be spaced apart by at least two stud bays for 16 in, o.c. framing or one bay for 24 in. o.c. framing.

While random placement of the planks is usually the most aesthetically pleasing, a progressive stagger pattern can make the job easier and faster without the pattern becoming too noticeable. With this strategy, the cut off piece for one course becomes the starter piece for a course above, making efficient use of materials and ensuring that all butt joints land on studs. The pattern can be modified for different stud placement.

10.8

Cutoff pieces form the starter pieces for courses above.



JOINT FLASHING

One or more of the following joint treatment options are required by code (as referenced 2009 IRC R703.10.2)

- A. Joint Flashing (James Hardie recommended)
- B. Caulking* (Caulking is not recommended for ColorPlus for aesthetic reasons as the Caulking and ColorPlus will weather differently. For the same reason, do not caulk nail heads on ColorPlus products.)
- C. "H" jointer cover

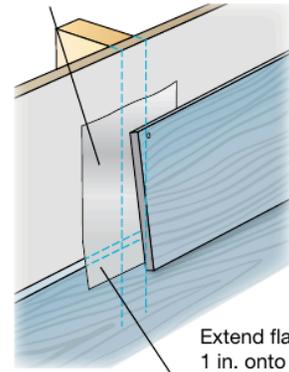
Flashing behind butt joints provides an extra level of protection against the entry of water at the joint. James Hardie recommends 6 in. wide flashing that overlaps the course below by 1 in. Some local building codes may require different size flashing.

Joint-flashing material must be durable, waterproof materials that do not react with cement products. Examples of suitable material include finished coil stock and code compliant water-resistive barriers. Other products may also be suitable.

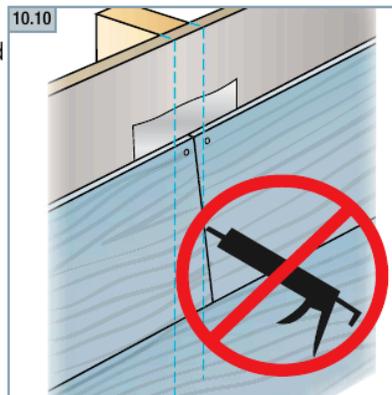
TIP: Joint flashing can be quickly and easily made by cutting a 6 in. wide section off a roll of housewrap. Tape the roll tightly at the cut mark and cut the section off using a miter saw with a carbide blade. Individual sheets then can be cut to length with a utility knife.

TIP: Use light-colored joint flashing when using light-colored ColorPlus lap siding or other siding with a light-colored finish. Dark-color joint flashings should be used on siding with dark finishes.

10.9 Flashing behind to add an additional layer of protection from water infiltration



Extend flashing 1 in. onto the course below

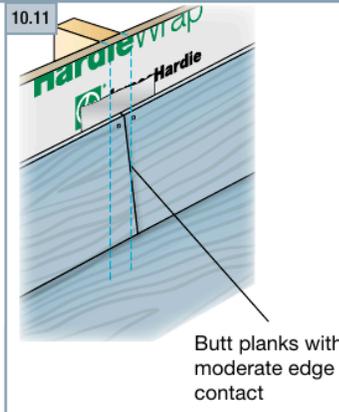


Caulking at HardiePlank lap siding butt joints is not recommended for ColorPlus for aesthetic reasons as the caulking and ColorPlus will weather differently. For the same reason, do not caulk exposed nail heads. Refer to the ColorPlus touch-up section for details

JOINT PLACEMENT AND TREATMENT

Butt joints in HardiePlank lap siding should always land on a stud. Butt joints between studs are not recommended and should be avoided. Whenever possible, factory-finished ends should be used at butt joints.

Place cut ends where the siding meets a corner, door, window trim, or other break in the wall where the joint is to be caulked. If cut ends are used in a butt joint between planks, James Hardie requires sealing cut ends for all products. For ColorPlus products, use the color-matched edge coater to seal the cut end.



Butt planks with moderate edge contact

COLORPLUS® TIP: When installing HardiePlank lap siding with ColorPlus Technology, position the plank in the immediate area where the plank is to be fastened. Do not place the plank on the course below and slide into position. Doing so may scuff or scratch the ColorPlus finish on the installed piece.

Installation of HardiePlank® Lap Siding (cont.)

CONTINUING THE INSTALLATION

Once the initial course of HardiePlank® siding is fastened to the wall, continue installing successive courses with full 12 ft. pieces (follow the stagger pattern for longer walls), or until a window, door or other opening interrupts the course (fig 10.12). Notch planks as needed to fit around windows and doors. Again, be sure to seal all cut edges. Avoid placing butt joints directly above or below windows or above doors. Separate the joint from the opening by at least one course of siding.

Where butt joints land on a stud, make sure there is enough stud space for plank on both sides of the joint to land properly. Optimally both sides of a butt joint should land in the middle of a stud with 3/4 in landing space for each side. The minimum stud space for a plank to land is 3/8 in

Pay special attention to window, doors, and corners that have been trimmed before the siding goes on. Vertical trim boards may cover the king studs beside windows or doors, or they may cover up corner studs leaving no room for nailing the siding. In these places add extra studs as needed.

If corners are trimmed with HardieTrim® 5/4, 4/4 boards, it may be necessary to measure and cut the first pieces of siding to make sure the butt joints land on studs.

10.12 Planking around windows

Add an extra stud if necessary for nailing the ends of the planks.



Notch plank around window trim and flashing.

Keep butt joints more than one course away from top of window.



COLORPLUS TIP: HardiePlank lap siding with ColorPlus Technology is shipped with a protective laminate slip sheet, which should be left in place during cutting and fastening to reduce marring and scratching. The sheet should be removed immediately after each plank is installed.



INSTALLING HARDIEPLANK® SIDING ON GABLE WALLS

Siding gable walls can be challenging, and some of the keys to siding gable walls efficiently are determining the angle or pitch of the roof, properly staging materials, and ensuring that the plank lengths are measured accurately.

To estimate the amount of siding needed to complete a gable end, use the estimating tools located in Appendix C.

Stage enough material on the pump jacks or scaffolding to complete the gable end, but take care not to overload the staging. When possible, a cut table should be located on the pump jacks or scaffolding, which frees up crew members to work on other walls.

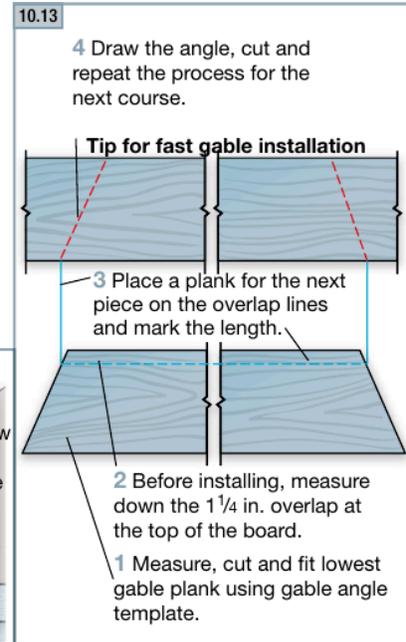
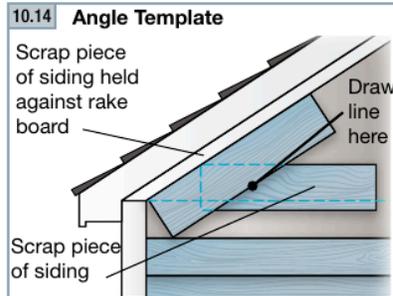
To cut planks for the gable:

1. Tack up a small scrap piece of siding where the first gable course is going.
2. Hold a second small piece of siding against the eave or rake board.
3. Trace the angle onto the scrap.
4. Cut that line and label the scrap as the template for the gable angle. The template can then be used to transfer the angle onto the larger pieces for cutting and installation.
5. Periodically check the angle as you progress up the wall.

The quickest way to measure and cut consecutive courses of siding for a gable is to work off the previous piece.

1. Cut and fit the lowest course of siding.
2. Before installing, lay it flat and measure down 1 1/4 in. from the top edge of the plank for the course overlap. Make a mark on both ends.
3. Set a piece of uncut siding on top of the first piece, aligning the bottom edge with the overlap marks. Transfer the length directly to the uncut piece.
4. Draw the gable angle with the template, cut the angle and then repeat the process for the next course.

TIP: Stainless steel fasteners are recommended when installing James Hardie® products.



HARDIEPLANK® SIDING FASTENER SPECIFICATIONS
 The Fastener Specifications table shows fastener options for a variety of different nailing substrates. Please refer to the applicable ESR report online (see back page) to determine which fastener meets your wind load design criteria.

| Fastener Substrate | | Approved Fastener | Fastener Type |
|---|------------|--|--|
| wood studs | blind nail | 16 in o.c. | ② .113 in x .267 in x 2 in — 6D common |
| | | 24 in o.c. | ③ ⑨ ⑬ .093 in x .222 in x 2 in — 6D siding nail |
| | face nail | 16 in o.c. | ② ⑤ No 11ga 1.25 in long — roofing nail |
| | | 24 in o.c. | ② ⑤ Ribbed Bugle-Head No. 8 .323 in x 1.625 in — screws |
| steel studs* | blind nail | 16 in o.c. | ⑧ ⑬ Ribbed Wafer-Head No. 8 (.375 in x 1.25 in) |
| | | 24 in o.c. | ⑫ [AKN-100] .100 in x .25 in x 1.5 in — ET&F |
| | face nail | 16 in o.c. | ⑭ [AGS-100] .100 in x .313 in x 1.5 in — screws |
| | | 24 in o.c. | ⑦ ⑫ [ASTM C-90] ASM-144-125 (P/C) .30 in x .14 in x 1.25 in — masonry nail |
| Direct to Masonry | | ⑭ .113 in x .260 in x 2.375 in — 8D common | |
| 7/16 in OSB or equivalent (face nailed) | | ④ No 11ga 1.75 in long — roofing nail | |
| | | | ④ .091 in. x .221 in. x 1.5 in — 4D siding nail |

*When blind fastening 9.5 in or wider product onto steel studs, use screws.

● indicates recommended fasteners



IMPORTANT: FAILURE TO FOLLOW JAMES HARDIE WRITTEN INSTALLATION INSTRUCTIONS AND COMPLY WITH APPLICABLE BUILDING CODES MAY VIOLATE LOCAL LAWS, AFFECT BUILDING ENVELOPE PERFORMANCE AND MAY AFFECT WARRANTY COVERAGE. FAILURE TO COMPLY WITH ALL HEALTH AND SAFETY REGULATIONS WHEN CUTTING AND INSTALLING THIS PRODUCT MAY RESULT IN PERSONAL INJURY. BEFORE INSTALLATION, CONFIRM YOU ARE USING THE CORRECT HARDIEZONE® PRODUCT INSTRUCTIONS BY VISITING HARDIEZONE.COM OR CALL 1-866-942-7343 (866-9-HARDIE)

⚠ CUTTING INSTRUCTIONS

STORAGE & HANDLING:

Store flat and keep dry and covered prior to installation. Installing siding wet or saturated may result in shrinkage at butt joints. Carry planks on edge. Protect edges and corners from breakage. James Hardie is not responsible for damage caused by improper storage and handling of the product.



OUTDOORS

- Position cutting station so that airflow blows dust away from the user and others near the cutting area.
- Cut using one of the following methods:
 - Best: Circular saw equipped with a HardieBlade® saw blade and attached vacuum dust collection system. Shears (manual, pneumatic or electric) may also be used, not recommended for products thicker than 7/16 in.
 - Better: Circular saw equipped with a dust collection feature (e.g. Roan® saw) and a HardieBlade saw blade.
 - Good: Circular saw equipped with a HardieBlade saw blade.

INDOORS

- DO NOT grind or cut with a power saw indoors. Cut using shears (manual, pneumatic or electric) or the score and snap method, not recommended for products thicker than 7/16 in.
- DO NOT dry sweep dust; use wet dust suppression or vacuum to collect dust.
 - For maximum dust reduction, James Hardie recommends using the "Best" cutting practices. Always follow the equipment manufacturer's instructions for proper operation.
 - For best performance when cutting with a circular saw, James Hardie recommends using HardieBlade® saw blades.
 - Go to jameshardiepros.com for additional cutting and dust control recommendations.

IMPORTANT: The Occupational Safety and Health Administration (OSHA) regulates workplace exposure to silica dust. For construction sites, OSHA has deemed that cutting fiber cement with a circular saw having a blade diameter less than 8 inches and connected to a commercially available dust collection system per manufacturer's instructions results in exposures below the OSHA Permissible Exposure Limit (PEL) for respirable crystalline silica, without the need for additional respiratory protection.

If you are unsure about how to comply with OSHA silica dust regulations, consult a qualified industrial hygienist or safety professional, or contact your James Hardie technical sales representative for assistance. James Hardie makes no representation or warranty that adopting a particular cutting practice will assure your compliance with OSHA rules or other applicable laws and safety requirements.

IMPORTANT: To prevent damage to the drip edge, extra care should be taken when removing planks from the pallet, while handling, and when installing with a lap gauge. Please see additional handling requirements on page 4.

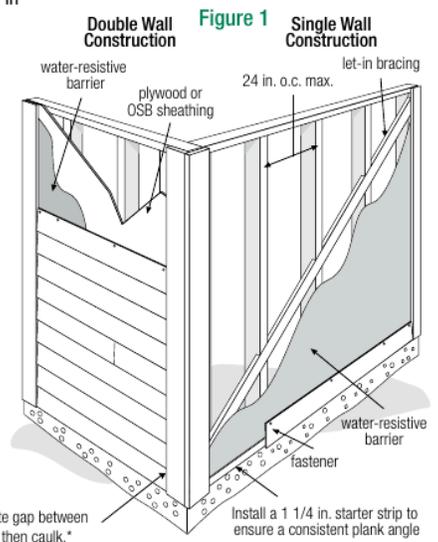
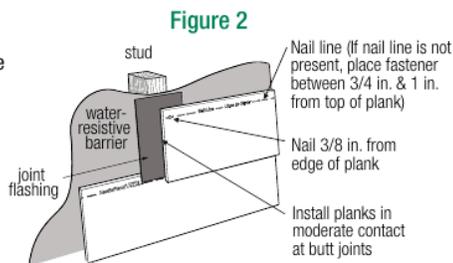
GENERAL REQUIREMENTS:

- HardiePlank® lap siding can be installed over braced wood or steel studs, 20 gauge (33 mils) minimum to 16 gauge (54 mils) maximum, spaced a maximum of 24 in o.c. or directly to minimum 7/16 in thick OSB sheathing. See General Fastening Requirements. Irregularities in framing and sheathing can mirror through the finished application. Correct irregularities before installing siding.
- Information on installing James Hardie products over non-nailable substrates (ex: gypsum, foam, etc.) can be located in JH Tech Bulletin 19 at www.jameshardie.com
- A water-resistive barrier is required in accordance with local building code requirements. The water-resistive barrier must be appropriately installed with penetration and junction flashing in accordance with local building code requirements. James Hardie will assume no responsibility for water infiltration. James Hardie does manufacture HardieWrap® Weather Barrier, a non-woven non-perforated housewrap¹, which complies with building code requirements.
- Adjacent finished grade must slope away from the building in accordance with local building codes - typically a minimum of 6 in. in the first 10 ft..
- Do not use HardiePlank lap siding in Fascia or Trim applications.
- Do not install James Hardie products, such that they may remain in contact with standing water.
- HardiePlank lap siding may be installed on flat vertical wall applications only.
- For larger projects, including commercial and multi-family projects, where the span of the wall is significant in length, the designer and/or architect should take into consideration the coefficient of thermal expansion and moisture movement of the product in their design. These values can be found in the Technical Bulletin "Expansion Characteristics of James Hardie® Siding Products" at www.jameshardie.com.
- James Hardie Building Products provides installation /wind load information for buildings with a maximum mean roof height of 85 feet. For information on installations above 60 feet, please contact JH technical support.

INSTALLATION: JOINT TREATMENT

One or more of the following joint treatment options are required by code (as referenced 2009 IRC R703.10.2)

- Joint Flashing (James Hardie recommended)
- Caulking* (Caulking is not recommended for ColorPlus for aesthetic reasons as the Caulking and ColorPlus will weather differently. For the same reason, do not caulk nail heads on ColorPlus products.)
- "H" jointer cover



Note: Field painting over caulking may produce a sheen difference when compared to the field painted PrimePlus. *Refer to Caulking section in these instructions.

¹For additional information on HardieWrap® Weather Barrier, consult James Hardie at 1-866-4Hardie or www.hardiewrap.com





CLEARANCE AND FLASHING REQUIREMENTS

Figure 3
Roof to Wall

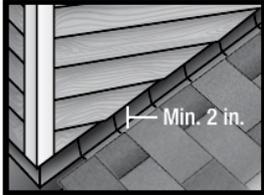


Figure 4
Horizontal Flashing

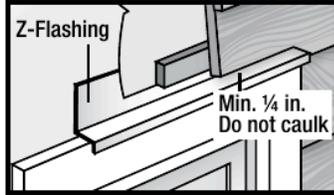


Figure 5
Kickout Flashing

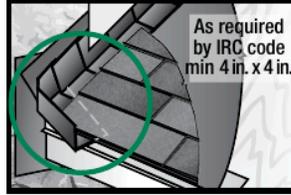


Figure 6
Slabs, Path, Steps to Siding

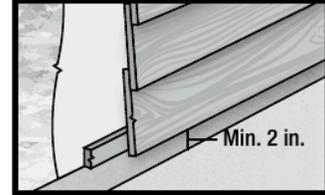


Figure 7
Deck to Wall

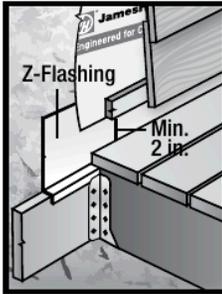


Figure 8
Ground to Siding

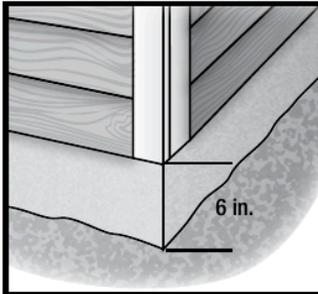


Figure 9
Gutter to Siding



Figure 10
Sheltered Areas

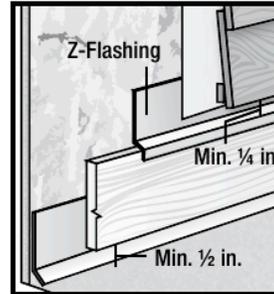


Figure 11
Mortar/Masonry

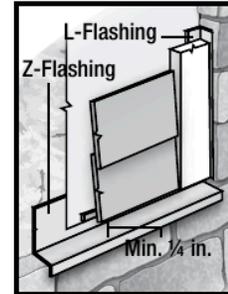


Figure 12
Drip Edge

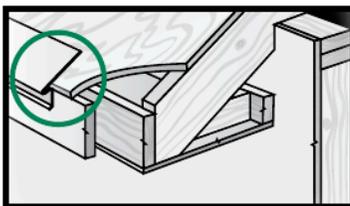


Figure 13
Block Penetration

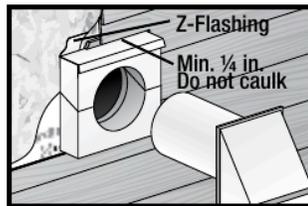


Figure 14
Valley/Shingle Extension



FASTENER REQUIREMENTS*

Refer to the applicable ESR report online to determine which fastener meets your wind load design criteria.

Blind Nailing is the preferred method of installation for HardiePlank® lap siding products. Face nailing should only be used where required by code for high wind areas and must not be used in conjunction with Blind nailing (Please see JH Tech bulletin 17 for exemption when doing a repair).

BLIND NAILING

Nails - Wood Framing

- Siding nail (0.09 in. shank x 0.221 in. HD x 2 in. long)
- 11ga. roofing nail (0.121 in. shank x 0.371 in. HD x 1.25 in. long)

Screws - Steel Framing

- Ribbed Wafer-head or equivalent (No. 8 x 1 1/4 in. long x 0.375 in. HD) Screws must penetrate 3 threads into metal framing.

Nails - Steel Framing

- ET & F Panelfast® nails or equivalent (0.10 in. shank x 0.313 in. HD x 1-1/2 in. long) Nails must penetrate minimum 1/4 in. into metal framing.

OSB minimum 7/16 in.

- Siding nail (0.09 in. shank x 0.215 in. HD x 1-1/2 in. long)
- Ribbed Wafer-head or equivalent (No. 8 x 1 5/8 in. long x 0.375 in. HD).

FACE NAILING

Nails - Wood Framing

- 6d (0.113 in. shank x 0.267 in. HD x 2 in. long)
- Siding nail (0.09" shank x 0.221" HD x 2" long)

Screws - Steel Framing

- Ribbed Bugle-head or equivalent (No. 8-18 x 1-5/8 in. long x 0.323 in. HD) Screws must penetrate 3 threads into metal framing.

Nails - Steel Framing

- ET & F pin or equivalent (0.10 in. shank x 0.25 in. HD x 1-1/2 in. long) Nails must penetrate minimum 1/4 in. into metal framing.

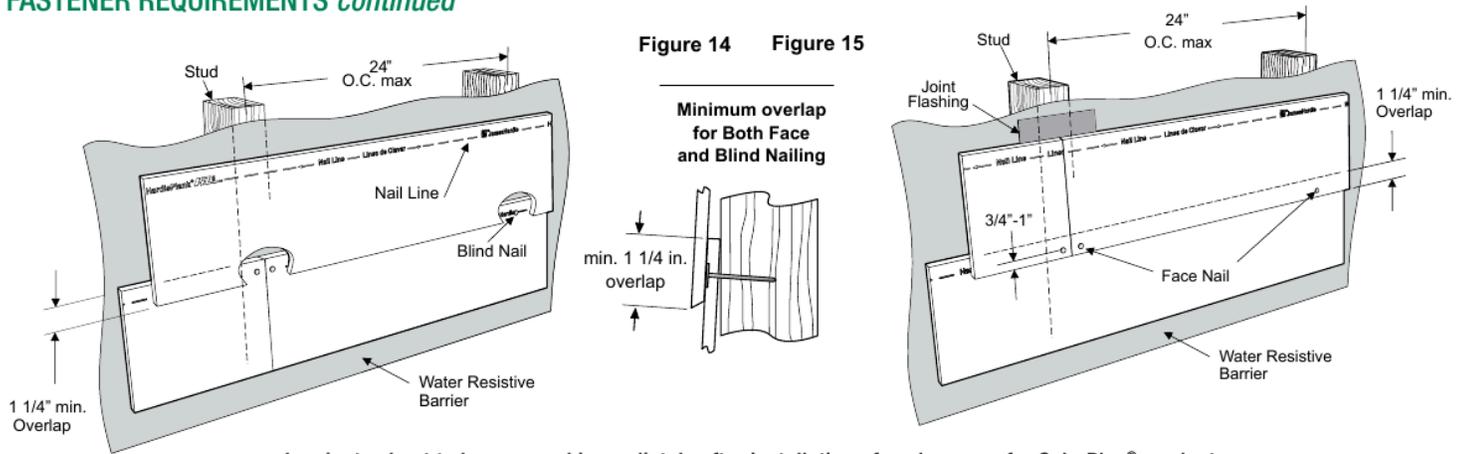
OSB minimum 7/16 in.

- Siding nail (0.09 in. shank x 0.221 in. HD x 1-1/2 in. long)

*Also see General Fastening Requirements; and when considering alternative fastening options refer to James Hardie's Technical Bulletin USTB 5 - Fastening Tips for HardiePlank Lap Siding.



FASTENER REQUIREMENTS *continued*



Laminate sheet to be removed immediately after installation of each course for ColorPlus® products.

Pin-backed corners may be done for aesthetic purposes only. Finish nails are recommended for pin-backs. Headed siding nails are allowed. Place pin-backs no closer than 1 in. from plank ends and 3/4 in. from plank edge into min. 3/8 in. wood structural panel. Pin-backs are not a substitute for blind or face nailing.

GENERAL FASTENING REQUIREMENTS

Fasteners must be corrosion resistant, galvanized, or stainless steel. Electro-galvanized are acceptable but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. James Hardie is not responsible for the corrosion resistance of fasteners. Stainless steel fasteners are recommended when installing James Hardie® products near the ocean, large bodies of water, or in very humid climates.

Manufacturers of ACQ and CA preservative-treated wood recommend spacer materials or other physical barriers to prevent direct contact of ACQ or CA preservative-treated wood and aluminum products. Fasteners used to attach HardieTrim Tabs to preservative-treated wood shall be of hot dipped zinc-coated galvanized steel or stainless steel and in accordance to 2009 IRC R317.3 or 2009 IBC 2304.9.5

- Consult applicable product evaluation or listing for correct fasteners type and placement to achieve specified design wind loads.
- NOTE: Published wind loads may not be applicable to all areas where Local Building Codes have specific jurisdiction. Consult James Hardie Technical Services if you are unsure of applicable compliance documentation.
- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space).
- NOTE: Whenever a structural member is present, HardiePlank should be fastened with even spacing to the structural member. The tables allowing direct to OSB or plywood should only be used when traditional framing is not available.

CUT EDGE TREATMENT

Caulk, paint or prime all field cut edges. James Hardie touch-up kits are required to touch-up ColorPlus products.

CAULKING

For best results use an Elastomeric Joint Sealant complying with ASTM C920 Grade NS, Class 25 or higher or a Latex Joint Sealant complying with ASTM C834. Caulking/Sealant must be applied in accordance with the caulking/sealant manufacturer's written instructions.

Note: some caulking manufacturers do not allow "tooling".

PAINTING

DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie® products. Factory-primed James Hardie products must be painted within 180 days of installation. 100% acrylic topcoats are recommended. Do not paint when wet. For application rates refer to paint manufacturers specifications. Back-rolling is recommended if the siding is sprayed.

PNEUMATIC FASTENING

James Hardie products can be hand nailed or fastened with a pneumatic tool. Pneumatic fastening is highly recommended. Set air pressure so that the fastener is driven snug with the surface of the siding. A flush mount attachment on the pneumatic tool is recommended. This will help control the depth the nail is driven. If setting the nail depth proves difficult, choose a setting that under drives the nail. (Drive under driven nails snug with a smooth faced hammer - Does not apply for installation to steel framing).

| | | | | |
|---|--|--|--|---|
| <p>SNUG FLUSH</p> | | | | |
| <p>DO NOT</p> <p>UNDER DRIVE</p> | | <p>DO NOT</p> <p>OVER DRIVE SLANT</p> | | <p>DO NOT USE</p> <p>ALUMINUM FASTENERS</p> |
| <p>IF, THEN</p> <p>WOOD FRAME</p> <p>HAMMER FLUSH</p> | | <p>IF, THEN ADDITIONAL NAIL</p> <p>STEEL FRAME</p> <p>REMOVE & REPLACE</p> | | <p>DO NOT USE</p> <p>CLIPPED HEAD NAILS</p> |
| | | <p>FACE NAIL</p> <p>COUNTERSINK & FILL</p> | | <p>DO NOT USE</p> <p>STAPLES</p> |



COLORPLUS® TECHNOLOGY CAULKING, TOUCH-UP & LAMINATE

- Care should be taken when handling and cutting James Hardie ColorPlus® products. During installation use a wet soft cloth or soft brush to gently wipe off any residue or construction dust left on the product, then rinse with a garden hose.
- Touch up nicks, scrapes and nail heads using the ColorPlus® Technology touch-up applicator. Touch-up should be used sparingly. If large areas require touch-up, replace the damaged area with new HardiePlank® lap siding with ColorPlus® Technology.
- Laminate sheet must be removed immediately after installation of each course.
- Terminate non-factory cut edges into trim where possible, and caulk. Color matched caulks are available from your ColorPlus® product dealer.
- Treat all other non-factory cut edges using the ColorPlus Technology edge coaters, available from your ColorPlus product dealer.

Note: James Hardie does not warrant the usage of third party touch-up or paints used as touch-up on James Hardie ColorPlus products.

Problems with appearance or performance arising from use of third party touch-up paints or paints used as touch-up that are not James Hardie touch-up will not be covered under the James Hardie ColorPlus Limited Finish Warranty.

COVERAGE CHART/ESTIMATING GUIDE

Number of 12 ft. planks, does not include waste

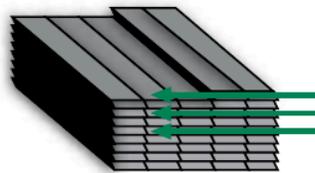
| COVERAGE AREA LESS OPENINGS | HARDIEPLANK® LAP SIDING WIDTH | | | | | | | | | |
|-----------------------------------|-------------------------------|------------|------------|------------|----------------|------------|------------|------------|----------------|--------------|
| | (exposure) | 5 1/4 4 | 6 1/4 5 | 7 1/4 6 | 7 1/2 6 1/4 | 8 6 3/4 | 8 1/4 7 | 9 1/4 8 | 9 1/2 8 1/4 | 12 10 3/4 |
| SQ (1 SQ = 100 sq.ft.) | | | | | | | | | | |
| 1 | | 25 | 20 | 17 | 16 | 15 | 14 | 13 | 13 | 9 |
| 2 | | 50 | 40 | 33 | 32 | 30 | 29 | 25 | 25 | 19 |
| 3 | | 75 | 60 | 50 | 48 | 44 | 43 | 38 | 38 | 28 |
| 4 | | 100 | 80 | 67 | 64 | 59 | 57 | 50 | 50 | 37 |
| 5 | | 125 | 100 | 83 | 80 | 74 | 71 | 63 | 63 | 47 |
| 6 | | 150 | 120 | 100 | 96 | 89 | 86 | 75 | 75 | 56 |
| 7 | | 175 | 140 | 117 | 112 | 104 | 100 | 88 | 88 | 65 |
| 8 | | 200 | 160 | 133 | 128 | 119 | 114 | 100 | 100 | 74 |
| 9 | | 225 | 180 | 150 | 144 | 133 | 129 | 113 | 113 | 84 |
| 10 | | 250 | 200 | 167 | 160 | 148 | 143 | 125 | 125 | 93 |
| 11 | | 275 | 220 | 183 | 176 | 163 | 157 | 138 | 138 | 102 |
| 12 | | 300 | 240 | 200 | 192 | 178 | 171 | 150 | 150 | 112 |
| 13 | | 325 | 260 | 217 | 208 | 193 | 186 | 163 | 163 | 121 |
| 14 | | 350 | 280 | 233 | 224 | 207 | 200 | 175 | 175 | 130 |
| 15 | | 375 | 300 | 250 | 240 | 222 | 214 | 188 | 188 | 140 |
| 16 | | 400 | 320 | 267 | 256 | 237 | 229 | 200 | 200 | 149 |
| 17 | | 425 | 340 | 283 | 272 | 252 | 243 | 213 | 213 | 158 |
| 18 | | 450 | 360 | 300 | 288 | 267 | 257 | 225 | 225 | 167 |
| 19 | | 475 | 380 | 317 | 304 | 281 | 271 | 238 | 238 | 177 |
| 20 | | 500 | 400 | 333 | 320 | 296 | 286 | 250 | 250 | 186 |

This coverage chart is meant as a guide. Actual usage is subject to variables such as building design. James Hardie does not assume responsibility for over or under ordering of product.

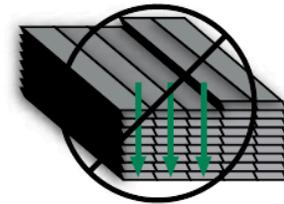
ADDITIONAL HANDLING REQUIREMENTS

IMPORTANT: To prevent damage to the drip edge, extra care should be taken when removing planks from the pallet, while handling, and when installing with a lap gauge. Planks are interlocked together on the pallet, therefore they should be removed from the pallet horizontally (side to side) to allow planks to unlock themselves from one another.

Pull from across the stack



Do not go down the stack



HS11117 P4/4 09/19

SILICA WARNING

DANGER: May cause cancer if dust from product is inhaled. Causes damage to lungs and respiratory system through prolonged or repeated inhalation of dust from product. Refer to the current product Safety Data Sheet before use. The hazard associated with fiber cement arises from crystalline silica present in the dust generated by activities such as cutting, machining, drilling, routing, sawing, crushing, or otherwise abrading fiber cement, and when cleaning up, disposing of or moving the dust. When doing any of these activities in a manner that generates dust you must (1) comply with the OSHA standard for silica dust and/or other applicable law, (2) follow James Hardie cutting instructions to reduce or limit the release of dust; (3) warn others in the area to avoid breathing the dust; (4) when using mechanical saw or high speed cutting tools, work outdoors and use dust collection equipment; and (5) if no other dust controls are available, wear a dust mask or respirator that meets NIOSH requirements (e.g. N-95 dust mask). During clean-up, use a well maintained vacuum and filter appropriate for capturing fine (respirable) dust or use wet clean-up methods - never dry sweep.

WARNING: This product can expose you to chemicals including respirable crystalline silica, which is known to the State of California to cause cancer. For more information go to P65Warnings.ca.gov.

RECOGNITION: In accordance with ICC-ES Evaluation Report ESR-2290, HardiePlank® lap siding is recognized as a suitable alternate to that specified in the 2006, 2009, 2012 & 2015 International Residential Code for One and Two-Family Dwellings, and the 2006, 2009, 2012 & 2015 International Building Code. HardiePlank lap siding is also recognized for application in the following: City of Los Angeles Research Report No. 24862, State of Florida Product Approval FL#13192, Miami-Dade County Florida NOA No. 17-0406.06, U.S. Dept. of HUD Materials Release 1263f, Texas Department of Insurance Product Evaluation EC-23, City of New York MEA 223-93-M, and California DSA PA-019. These documents should also be consulted for additional information concerning the suitability of this product for specific applications.

EXTERIOR WALL PANEL

Manufacturer: woodtone
Style/Series: Rusticseries Lap Siding

Attributes

Model: RUSTICSERIES™ LAP SIDING

DIMENSIONS

Thickness: 8 1/4"

MATERIAL / FINISH

Color: Summer Wheat
Substrate: James Hardie

MISCELLANEOUS

Warranty: Woodtone RusticSeries™ carries a 20 year limited coating warranty in addition to the substrate manufacturer's warranty. Visit woodtone.com for full details.



RUSTICSERIES™ LAP SIDING

SUBMITTAL DOCUMENT

Submitted to:

Project Name:

Submitted by:

Date:

Substrate:

Profile:

Color:

RUSTICSERIES™ LAP SIDING

SPECIFICATION SHEET

Manufacturer

Woodtone Building Products

- 8007 Aitken Road, Chilliwack BC
- 9403 24th Place West, Everett WA

Features

- Two-tone wood look without the maintenance
- Sustainable substrate and coating practices
- 20-year coating warranty + substrate warranty

Available Substrates

- James Hardie fiber cement profiles - 12'
5¼", 6¼", 7¼", 8¼", 9¼", 12"
- Allura fiber cement profiles - 12'
5¼", 6¼", 7¼", 8¼", 9¼", 12"
- LP Smartside engineered wood profiles - 16'
6", 8", 12"

Colors

RusticSeries™ is available in 18 two-tone colors.

- | | |
|------------------|--------------------|
| • Aspen Ridge | • Roasted Walnut |
| • Black Canyon | • Rosewood |
| • Caribou Trails | • Sand Castle |
| • Cascade Slate | • Stone Blue |
| • Coastal Gray | • Summer Wheat |
| • Midnight Tide | • Warm Espresso |
| • Mountain Cedar | • White Granite |
| • Old Cherry | • White Rapids |
| • River Rock | • Winchester Brown |

Use

Woodtone RusticSeries™ is used as exterior wall covering. This product is prefinished and available in fiber cement or engineered wood substrates.

Texture & Finish

Woodtone RusticSeries™ is applied to textured substrate only. The coating is manufactured by Akzo Nobel and applied in a controlled factory setting.

Trim and Caulking

Solid color trim suggestions and matching caulking available for each RusticSeries™ color at woodtone.com.

Installation

Install Woodtone RusticSeries™ in accordance with:

- HardiePlank lap siding installation instructions
- Allura lap siding installation instructions
- LP Smartside installation instructions

Storage and Handling

Full Care and Maintenance guide: woodtone.com

- Do not store pallets directly on the ground.
- Ensure that slip sheeting stays between boards
- Use plastic wrap provided to keep the product dry
- Do not lift more than 2 packs by forklift at a time
- Do not stack pallets more than 3 high

Touch-up

Order touch-up online at woodtone.com/store

- Check the touch-up color ordered is correct
- Mix paint well, do not allow paint to freeze
- Test the color on the sample piece or hidden area

RusticClarity™

Woodtone RusticSeries™ coating carries a limited 20 year warranty. Following, we offer RusticClarity™, a one coat application to bring back the vibrance of your siding.

Warranty

Woodtone RusticSeries™ carries a 20 year limited coating warranty in addition to the substrate manufacturer's warranty. Visit woodtone.com for full details.

Important Notes

- RusticSeries™ replicates the natural beauty and warmth of real wood siding. Each substrate and profile will vary in terms of grain pattern and color.
- Woodtone will consider the installation of the product as final acceptance of the product.
- Improper installation of product will void warranty.

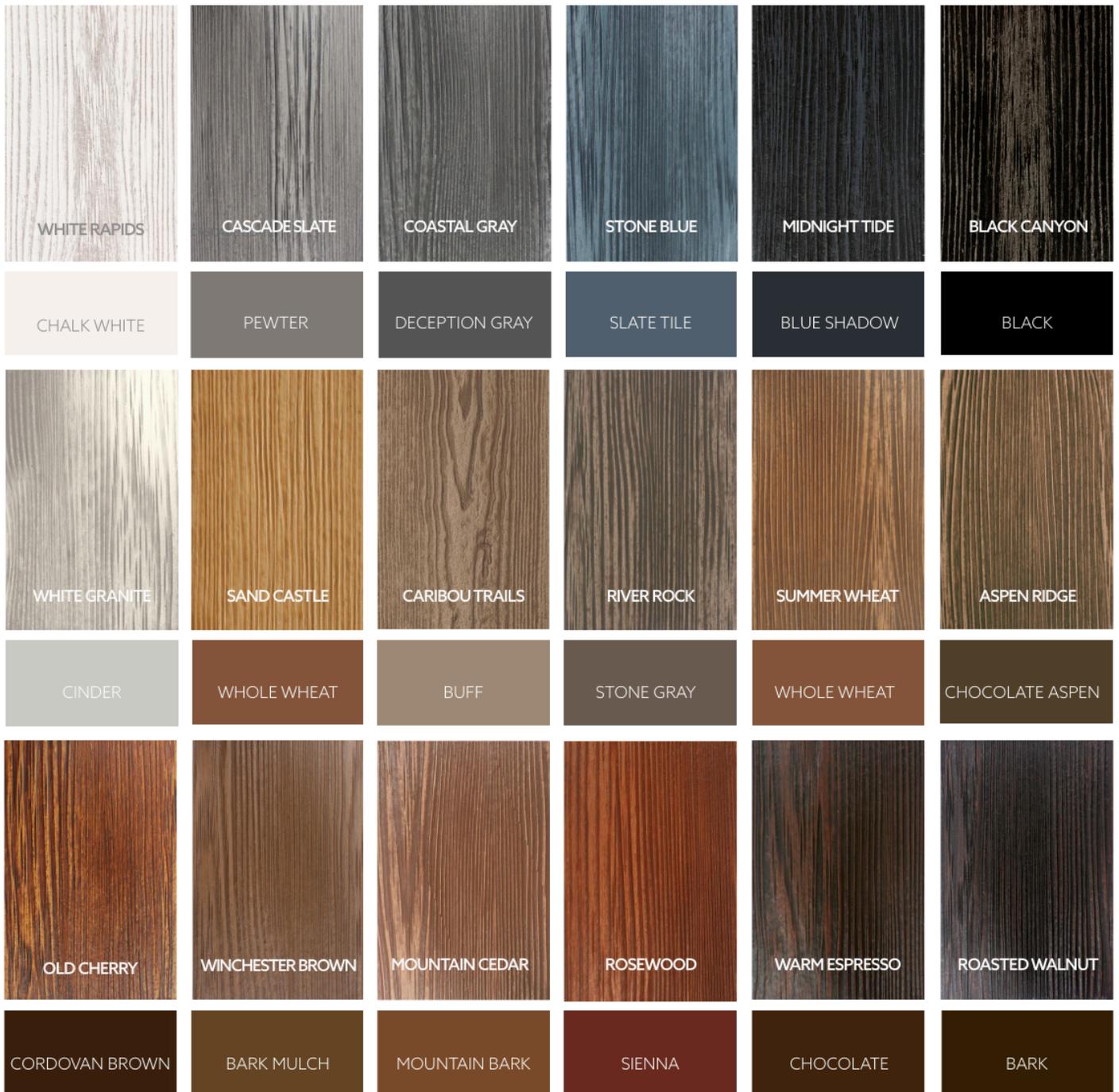
Strategic Accounts/Large Job Quotes

For assistance with commercial or multi-residential applications and large job quotes, please contact our Strategic Accounts team at spec@woodtone.com.

RUSTICSERIES™ LAP SIDING

SUBMITTAL DOCUMENT

Create a picture perfect exterior with our eighteen RusticSeries™ colors; select the perfect combination to suit your individual style. RusticSeries colors below are shown with a suggested solid color trim to complete the look.



Note: RusticSeries™ replicates the natural beauty of wood. Each substrate and each profile of this product varies in terms of grain pattern and color variance. Due to limitations of the printing process, actual color may vary from the color shown. Refer to a physical sample for approvals.



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EXTERIOR WALL PANEL

Manufacturer: woodtone
Style/Series: Rusticseries Lap Siding

Attributes

Model: RusticSeries™ Lap Siding

DIMENSIONS

Thickness: 8 1/4"

MATERIAL / FINISH

Color: River Rock
Substrate: James Hardie
Warranty: Woodtone RusticSeries™ carries a 20 year limited coating warranty in addition to the substrate manufacturer's warranty. Visit woodtone.com for full details.



RUSTICSERIES™ LAP SIDING

SUBMITTAL DOCUMENT

Submitted to:

Project Name:

Submitted by:

Date:

Substrate:

Profile:

Color:

RUSTICSERIES™ LAP SIDING

SPECIFICATION SHEET

Manufacturer

Woodtone Building Products

- 8007 Aitken Road, Chilliwack BC
- 9403 24th Place West, Everett WA

Features

- Two-tone wood look without the maintenance
- Sustainable substrate and coating practices
- 20-year coating warranty + substrate warranty

Available Substrates

- James Hardie fiber cement profiles - 12'
5¼", 6¼", 7¼", 8¼", 9¼", 12"
- Allura fiber cement profiles - 12'
5¼", 6¼", 7¼", 8¼", 9¼", 12"
- LP Smartside engineered wood profiles - 16'
6", 8", 12"

Colors

RusticSeries™ is available in 18 two-tone colors.

- | | |
|------------------|--------------------|
| • Aspen Ridge | • Roasted Walnut |
| • Black Canyon | • Rosewood |
| • Caribou Trails | • Sand Castle |
| • Cascade Slate | • Stone Blue |
| • Coastal Gray | • Summer Wheat |
| • Midnight Tide | • Warm Espresso |
| • Mountain Cedar | • White Granite |
| • Old Cherry | • White Rapids |
| • River Rock | • Winchester Brown |

Use

Woodtone RusticSeries™ is used as exterior wall covering. This product is prefinished and available in fiber cement or engineered wood substrates.

Texture & Finish

Woodtone RusticSeries™ is applied to textured substrate only. The coating is manufactured by Akzo Nobel and applied in a controlled factory setting.

Trim and Caulking

Solid color trim suggestions and matching caulking available for each RusticSeries™ color at woodtone.com.

Installation

Install Woodtone RusticSeries™ in accordance with:

- HardiePlank lap siding installation instructions
- Allura lap siding installation instructions
- LP Smartside installation instructions

Storage and Handling

Full Care and Maintenance guide: woodtone.com

- Do not store pallets directly on the ground.
- Ensure that slip sheeting stays between boards
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- Do not stack pallets more than 3 high

Touch-up

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- Mix paint well, do not allow paint to freeze
- Test the color on the sample piece or hidden area

RusticClarity™

Woodtone RusticSeries™ coating carries a limited 20 year warranty. Following, we offer RusticClarity™, a one coat application to bring back the vibrance of your siding.

Warranty

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Important Notes

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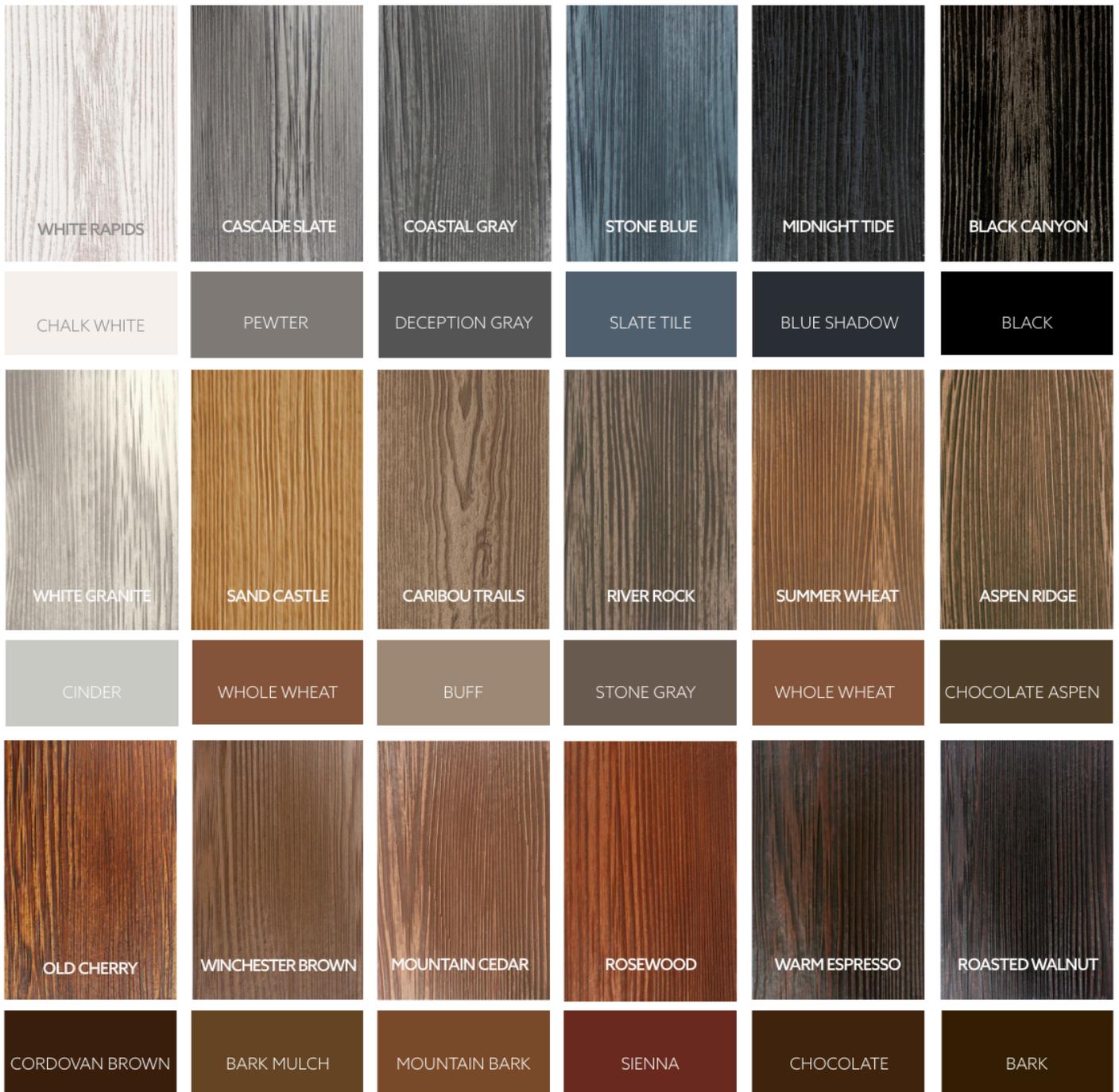
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RUSTICSERIES™ LAP SIDING

SUBMITTAL DOCUMENT

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EXTERIOR WALL PANEL

Manufacturer: woodtone
Style/Series: Rusticseries Lap Siding

Attributes

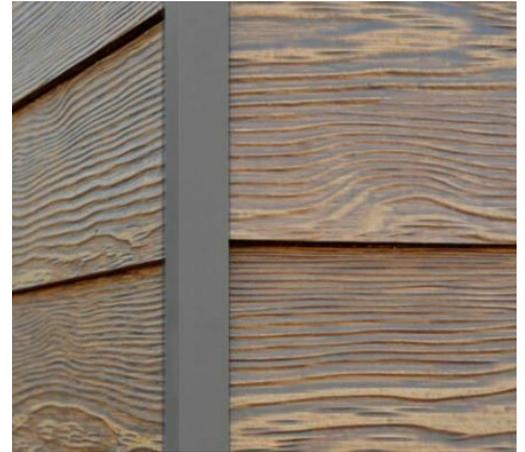
Model: RusticSeries™ Lap Siding

DIMENSIONS

Thickness: 8 1/4"

MATERIAL / FINISH

Color: Aspen Ridge
Substrate: James Hardie
Warranty: Woodtone RusticSeries™ carries a 20 year limited coating warranty in addition to the substrate manufacturer's warranty. Visit woodtone.com for full details.



RUSTICSERIES™ LAP SIDING

SUBMITTAL DOCUMENT

Submitted to:

Project Name:

Submitted by:

Date:

Substrate:

Profile:

Color:

RUSTICSERIES™ LAP SIDING

SPECIFICATION SHEET

Manufacturer

Woodtone Building Products

- 8007 Aitken Road, Chilliwack BC
- 9403 24th Place West, Everett WA

Features

- Two-tone wood look without the maintenance
- Sustainable substrate and coating practices
- 20-year coating warranty + substrate warranty

Available Substrates

- James Hardie fiber cement profiles - 12'
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6", 8", 12"

Colors

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- | | |
|------------------|--------------------|
| • Aspen Ridge | • Roasted Walnut |
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| • Caribou Trails | • Sand Castle |
| • Cascade Slate | • Stone Blue |
| • Coastal Gray | • Summer Wheat |
| • Midnight Tide | • Warm Espresso |
| • Mountain Cedar | • White Granite |
| • Old Cherry | • White Rapids |
| • River Rock | • Winchester Brown |

Use

Woodtone RusticSeries™ is used as exterior wall covering. This product is prefinished and available in fiber cement or engineered wood substrates.

Texture & Finish

Woodtone RusticSeries™ is applied to textured substrate only. The coating is manufactured by Akzo Nobel and applied in a controlled factory setting.

Trim and Caulking

Solid color trim suggestions and matching caulking available for each RusticSeries™ color at woodtone.com.

Installation

Install Woodtone RusticSeries™ in accordance with:

- HardiePlank lap siding installation instructions
- Allura lap siding installation instructions
- LP Smartside installation instructions

Storage and Handling

Full Care and Maintenance guide: woodtone.com

- Do not store pallets directly on the ground.
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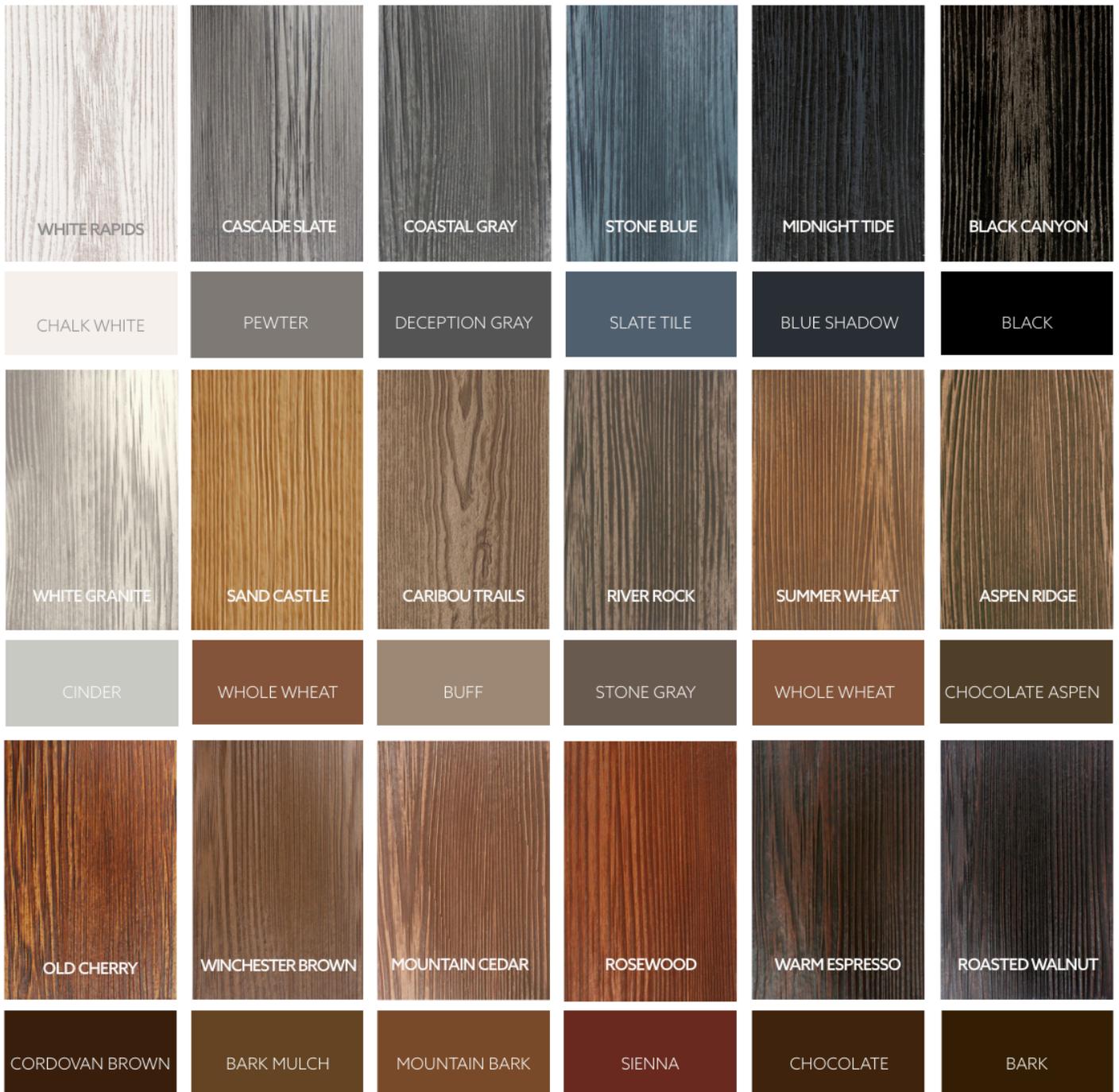
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EXTERIOR WALL PANEL

Metal composite material wall panel

Manufacturer: 3A Composites

Style/Series: Alucobond

Sales Rep

Primary

Mike Marushka

Email: mike.marushka@3acomposites.com

Office Phone: 980-759-4095

Attributes

Metal composite material wall panel

Type: Entrance canopy fascia fabricated from metal composite material wall panels.

DIMENSIONS

Dimension Explanation: Refer to the Design Guideline Drawings

MATERIAL/FINISH

Color: Match Sherwin Williams "Iron Ore SW7069"

Finish: Two-coat 70% PVDF resin complying with AAMA 2605.

PERFORMANCE

Accessories: Steel framing and furring required for attachment to canopy structure

Best Practices: Recycled content of aluminum

Fire/Smoke Rating: Fire Propagation: Complying with NFPA 285;

MISCELLANEOUS

Warranty: Panels: 2 years from the date of Substantial Completion.

Finish: 20 years from the date of Substantial Completion.

CUSTOM FIELDS

Eco-Feature(s) *as per manufacturer: NA

Thickness: 4 mm

Texture/Luster: NA

IMAGE NOT
AVAILABLE

ALUCOBOND TECHNICAL DATA SHEET

| Alucobond Type | | | | Alucobond Plus | | | Alucobond A2 | | |
|--------------------------|----------|-------------------|----------------------|--|------|---------------------|--------------|------|------|
| Panel Thickness | Standard | Unit | 3mm | 4mm | 6mm | 3mm | 4mm | 6mm | |
| Aluminium skin thickness | | mm | 0.05 | | | | | | |
| Core | | | 70% Mineral Filling | | | 93% Mineral Filling | | | |
| Weight | | kg/m ² | 5.9 | 7.6 | 10.8 | 5.9 | 7.6 | 10.8 | |
| Section Modulus | Z | DIN 53293 | cm ³ /m | 1.25 | 1.75 | 2.75 | 1.25 | 1.75 | 2.75 |
| Rigidity | EI | DIN 53293 | kNcm ² /m | 1250 | 2400 | 5900 | 1250 | 2400 | 5900 |
| Modulus of Elasticity | E | EN 1999 1.1 | Mpa | 70,000 | | | | | |
| Alloy | | EN 573.3 | | EN AW 5005A (AlMg1) | | | | | |
| Temper | | EN 515 | | H22 / H42 | | | | | |
| Tensile Strength | | EN 485.2 | MPa | Rm => 130 | | | | | |
| 0.2% Proof Stress | | EN 485.2 | MPa | Rp0.2 => 90 | | | | | |
| Elongation | | EN 485.2 | % | A50 => 5 | | | | | |
| Linear Thermal Expansion | | EN 1999 1.1 | | 2.4mm/m at 1000 C temperature difference | | | | | |
| Finish | | | | Coil Coated Fluoropolymer (PVDF or FEVE) | | | | | |
| Gloss | | EN 13523.2 | | Finish Dependant - Standard = 30 - 40% | | | | | |
| Pencil Hardness | | EN 13523.4 | | HB - F | | | | | |

Acoustic Properties

| | | | | | | | | | |
|-------------------------|------------|--------------|----|------|----|----|-------|-------|----|
| Sound Absorption factor | α_s | ISO 354 | | 0.05 | | | | | |
| Sound Transmission Loss | R_w | EN ISO 140.3 | dB | 27 | 27 | 27 | 27 | 27 | 27 |
| Loss Factor | d | EN ISO 6721 | | | | | 0.004 | 0.005 | |

Thermal Properties

| | | | | | | | | | |
|-----------------------------|-----------|-----------|--------------------|---------------------------|-------|--------|---------------------------|-------|-------|
| Thermal Resistance | R | DIN 52612 | m ² /W | 0.006 | 0.009 | 0.0151 | 0.002 | 0.003 | 0.005 |
| Thermal Conductivity | λ | DIN 52612 | W/mK | 0.33/mm thickness of core | | | 1.00/mm thickness of core | | |
| Heat Transition Coefficient | U | DIN 4108 | W/m ² K | 5.68 | 5.58 | 5.34 | 5.83 | 5.80 | 5.71 |
| Temperature Resistance | | | °C | -50 up to +80 | | | | | |

Fire Behaviour

| | | | | |
|--------------------------------|--|--|---|------------------|
| Australian Fire Classification | ABC8 CodeMark Certification | | Cert. No. GM CM 30070 Type A and B Constructions Mechanical fixing Type C Constructions Mechanical and tape fixing | |
| | AS ISO 9705 | | Group 1 Material | Group 1 Material |
| | EN13501.1 | | B-s1-d0 | A2-s1-d0 |
| | NFPA 285 | | PASS | |
| | BS-8414 | | Test data available | |

Sheet Sizes

Widths: 1250mm & 1575mm held in stock. 1000mm, 1500mm and special widths 1750mm & 2050mm available as project order.

Note: 1750mm width requires minimum 2000m² order. 2050mm width requires 6000m² order and cannot be mixed with standard width colours.

Lengths: 2500mm, 3200mm & 4000mm held in stock. Other lengths up to 10,000mm available as project order.

Surface Finishes

- | | | | | |
|--------------------------|--------------------|---------------------|------------------|-----------------|
| 1. Standard Colour Range | 2. Spectra Colour | 3. Sparkling Effect | 4. Anodized Look | 5. Urban Design |
| 6. NaturAL | 7. NaturAL Finesse | 8. Design Decor | 9. Terra | |

High quality Fluoropolymer finishes (PVDF and/or FEVE) with optimum UV & weathering properties are used exclusively.

Non standard custom colours are available subject to minimum quantity requirements.

Solar Reflective Indices (SRI) and Light Reflective Values (LRV) for most of the above finishes are available upon request.

Environment, Health & Safety

During the life cycle of ALUCOBOND no substances containing CFC, VOC's are released. The core material does not contain any Nitrogen, Chlorine or Sulphur.

3A Composites were one of the first companies to develop its own environmental management systems which is regularly audited by independent auditors and is certified to EN ISO 14001

All Alucobond finishes are RoHS compliant and contain no Lead, Cadmium, Mercury or Chromium.

Recycling

Alucobond can be fully recycled, ie. Both the core material and aluminium skins can be recycled and reused for the production of new material.

| | | | | |
|---|---|--|--|--|
| MELBOURNE 25 West Park Drive Derrimut VIC 3030 T. (03) 9394 3100 F. (03) 9394 3129 | SYDNEY 29 Henderson Street Turrella NSW 2205 T. (02) 8525 6900 F. (02) 9556 6068 | BRISBANE 128 - 132 Mica Road Carole Park QLD 4300 T. (07) 3718 2360 F. (07) 3718 2399 | PERTH 72 Bushland Ridge Bibra Lake WA 6163 T. (08) 9494 0100 F. (08) 94940190 | ADELAIDE 57 Barnes Avenue Marleston SA 5033 T. (08) 8348 6800 F. (08) 8445 8455 |
| www.alucobond.com.au | | info@alucobond.com.au | | ABN 75 104 808 853 |

EXTERIOR WALL PANEL

Glass-mat-faced gypsum board for exte...

Manufacturer: CertainTeed Corporation
Style/Series: GlasRoc Sheathing

Sales Rep

Primary

Technical Center

Email: No.Email.461
Office Phone: (61)341-7

Attributes

Glass-mat-faced gypsum board for exterior sheathing and soffit board.

Type: Glass-mat-faced gypsum board panels

DIMENSIONS

Width: 4'
Length: 8'
Thickness: 1/2" or 5/8"

MATERIAL/FINISH

Material Composition: Weather-resistant gypsum sheathing with a moisture resistant core and fiberglass mats
Color: White
Finish: Paint, EIFS or DEFS

PERFORMANCE

Accessories: Manufacturer's recommended joint tape and compound
Best Practices: Recycled content
Fire/Smoke Rating: UL Class A
Quality Standards: ASTM C1178

CUSTOM FIELDS

Eco-Feature(s) *as per manufacturer: NA
Thickness: 1/2" or 5/8"
Texture/Luster: NA



EXTERIOR WALL PANEL

Non-combustible fiber cement, exterio...

Manufacturer: James Hardie Products
Style/Series: HardieSoffit

Sales Rep

Primary

Email: No.Email.415
Office Phone: 888-542-7343

Attributes

Non-combustible fiber cement, exterior grade siding and soffit board complying with ASTM C1186, Grade II, Type A

Type: Fiber cement board soffit material, perforated for ventilation.

DIMENSIONS

Width: 48"
Length: 96"
Thickness: 1/4"

MATERIAL/FINISH

Material Composition: Non-combustible fiber cement, exterior grade siding and soffit board complying with ASTM C1186, Grade II, Type A
Color: White as approved by the Marriott Representative.
Finish: Paint

PERFORMANCE

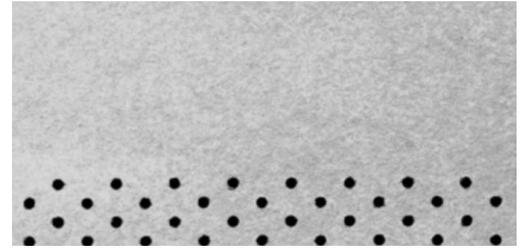
Best Practices: Recycled content
Quality Standards: ASTM C1186 "Standard Specification for Flat Fiber-Cement Sheets"

MISCELLANEOUS

Warranty: 50 years

CUSTOM FIELDS

Eco-Feature(s) *as per manufacturer: NA
Thickness: 1/4"
Texture/Luster: Smooth



HardieSoffit® Panel Products Description

HARDIESOFFIT® PANELS

HardieSoffit® panels are 8-ft. and 12-ft. long, 1/4-in. thick factory-primed fiber-cement panels designed to be used on the underside of eaves as soffit material. HardieSoffit panels are available as vented or non-vented boards. Vented HardieSoffit panels provide 5 sq. in. of net free ventilation per lineal foot of soffit.

James Hardie offers HardieSoffit panels in a range of time-saving pre-cut widths common to rake and eave applications. HardieSoffit panels come in either a smooth finish or Select Cedarmill® textured finish. Check with your local dealer for product availability. HardieSoffit panels can be combined with HardieTrim® Fascia boards used for fascia rakes and frieze applications to complete the eaves detailing.

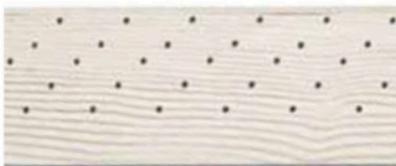
HardieSoffit panels are also available with ColorPlus® Technology. The ColorPlus® coating is a factory-applied, oven-baked finish available on a variety of James Hardie® siding and trim products. See your local dealer for details and availability of products, colors and accessories.

HARDIESOFFIT® BEADED PORCH PANEL

HardieSoffit Beaded Porch Panel is a decorative fiber cement panel to be used as ceiling on the underside of porches or eaves as exterior panel materials. HardieSoffit beaded porch panel is 1/4-in. thick, 4 ft. wide, 8 ft. in length, and has 2 in. o.c. beads, and comes with PrimePlus® factory primer and sealer. Must be finished with 100% acrylic paint. See your local dealer for details and availability of products, colors and accessories.



HardieSoffit Non-Vented – Smooth



HardieSoffit Vented – Cedar-mill®

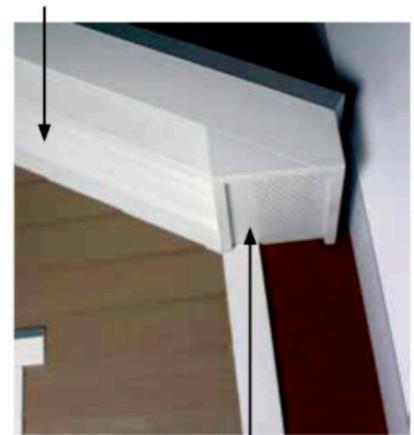


HardieSoffit Vented – Smooth



HardieSoffit Non-Vented – Cedar-mill®

HardieSoffit Non-Vented – Smooth



HardieSoffit Vented – Smooth



HardieSoffit Beaded Porch Panel



HardieSoffit Beaded Porch Panel

HardieSoffit® **HL5** Panels



EFFECTIVE SEPTEMBER 2013



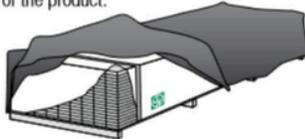
Visit www.jameshardie.com for the most recent version.

INSTALLATION REQUIREMENTS - PRIMED & COLORPLUS® PRODUCTS

IMPORTANT: FAILURE TO INSTALL AND FINISH THIS PRODUCT IN ACCORDANCE WITH APPLICABLE BUILDING CODES AND JAMES HARDIE WRITTEN APPLICATION INSTRUCTIONS MAY LEAD TO PERSONAL INJURY, AFFECT SYSTEM PERFORMANCE, VIOLATE LOCAL BUILDING CODES, AND VOID THE PRODUCT ONLY WARRANTY. BEFORE INSTALLATION, CONFIRM THAT YOU ARE USING THE CORRECT HARDIEZONE INSTRUCTIONS. TO DETERMINE WHICH HARDIEZONE APPLIES TO YOUR LOCATION, VISIT WWW.HARDIEZONE.COM OR CALL 1-866-942-7343 (866 9HARDIE)

STORAGE & HANDLING:

Store flat and keep dry and covered prior to installation. Installing siding wet or saturated may result in shrinkage at butt joints. Carry product on edge. Protect edges and corners from breakage. James Hardie is not responsible for damage caused by improper storage and handling of the product.



CUTTING INSTRUCTIONS

OUTDOORS

- Position cutting station so that wind will blow dust away from user and others in working area.
- Use one of the following methods:
 - Best:
 - Score and snap
 - Shears (manual, electric or pneumatic)
 - Better:
 - Dust reducing circular saw equipped with a HardieBlade® saw blade and HEPA vacuum extraction
 - Good:
 - Dust reducing circular saw with a HardieBlade saw blade (only use for low to moderate cutting)

INDOORS

- Cut only using score and snap, or shears (manual, electric or pneumatic).
 - Position cutting station in well-ventilated area
- NEVER use a power saw indoors
 - NEVER use a circular saw blade that does not carry the HardieBlade saw blade trademark
 - NEVER dry sweep - Use wet suppression or HEPA Vacuum

Important Note: For maximum protection (lowest respirable dust production), James Hardie recommends always using "Best"-level cutting methods where feasible.

NIOSH-approved respirators can be used in conjunction with above cutting practices to further reduce dust exposures. Additional exposure information is available at www.jameshardie.com to help you determine the most appropriate cutting method for your job requirements. If concern still exists about exposure levels or you do not comply with the above practices, you should always consult a qualified industrial hygienist or contact James Hardie for further information.

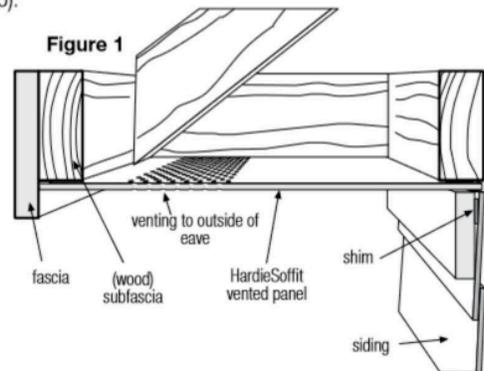
SD083105

GENERAL REQUIREMENTS:

- HardieSoffit® panels may be installed over either steel or wood framing complying with the local building code. See General Fastening Requirements. Install soffits to nominal 2 x 4 framing members spaced a maximum of 24 inches on center (fig.4).
- All edges must be supported by framing. (figs. 3 & 4)
- Install water barriers and air barriers as required by local building codes. James Hardie will assume no responsibility for moisture infiltration.
- Ensure gutters have end caps. Maintain a minimum 1" gap between end caps and siding & trim (fig.5).
- Install kickout flashing at roof-wall junctions. (fig 6.)
- DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie® Products.

INSTALLATION:

- HardieSoffit panels must be fastened to a solid, nailable substrate such as a wood 2x subfascia.
 - Additional framing may be needed to ensure proper fastening.
 - Soffits can be installed as shown in figure 1. Position the vent holes toward the outside of the eave for optimal airflow.
 - 12" to 24" wide Vented HardieSoffit panels, provide 5.0 square inches of net free ventilation per lineal foot.
 - Alternatively vents can be installed into non-vented soffit.
 - If necessary, an insect screen can be installed using construction adhesive.
- Note: net free ventilation will be reduced.



Fastener Requirements

- Position fasteners 3/8" from panel edges and no closer than 2" away from corners when using soffit greater than 12" wide (fig. 4) and no closer than 1" away from corners when using soffit that is less than or equal to 12" wide (fig. 3).

Jointing Methods

- Install panels in moderate contact at ends, provide PVC or metal jointers, battens or leave appropriate gap and caulk (fig 2).

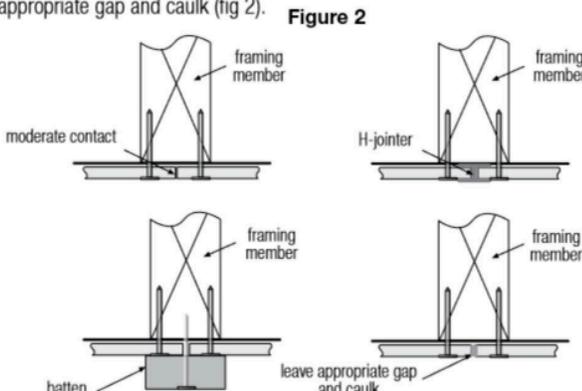


Figure 2

Figure 3

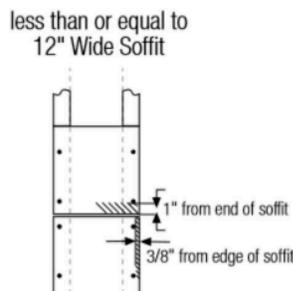
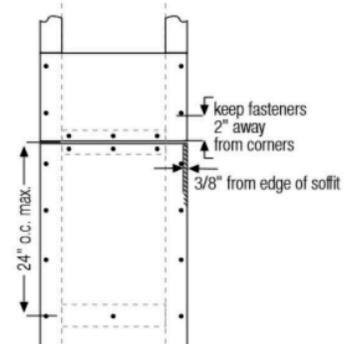


Figure 4
Greater than
12" Wide Soffit



¹For additional information on HardieWrap™ Weather Barrier, consult James Hardie at 1-866-4Hardie or www.hardiewrap.com

WARNING: AVOID BREATHING SILICA DUST

James Hardie® products contain respirable crystalline silica, which is known to the State of California to cause cancer and is considered by IARC and NIOSH to be a cause of cancer from some occupational sources. Breathing excessive amounts of respirable silica dust can also cause a disabling and potentially fatal lung disease called silicosis, and has been linked with other diseases. Some studies suggest smoking may increase these risks. During installation or handling: (1) work in outdoor areas with ample ventilation; (2) use fiber cement shears for cutting or, where not feasible, use a HardieBlade saw blade and dust-reducing circular saw attached to a HEPA vacuum; (3) warn others in the immediate area; (4) wear a properly-fitted, NIOSH-approved dust mask or respirator (e.g. N-95) in accordance with applicable government regulations and manufacturer instructions to further limit respirable silica exposures. During clean-up, use HEPA vacuums or wet cleanup methods - never dry sweep. For further information, refer to our installation instructions and Material Safety Data Sheet available at www.jameshardie.com or by calling 1-800-9HARDIE (1-800-942-7343). FAILURE TO ADHERE TO OUR WARNINGS, MSDS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY OR DEATH.

SD050005

Maintain a minimum 1" gap between gutter end caps and siding & trim.

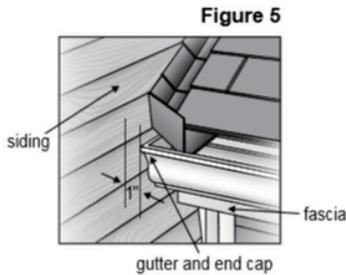
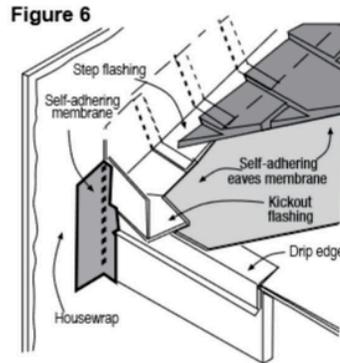


Figure 5



KICKOUT FLASHING

Because of the volume of water that can pour down a sloped roof, one of the most critical flashing details occurs where a roof intersects a sidewall. The roof must be flashed with step flashing. Where the roof terminates, install a kickout to deflect water away from the siding. It is best to install a self-adhering membrane on the wall before the subfascia and trim boards are nailed in place, and then come back to install the kickout.

Figure 6, Kickout Flashing To prevent water from dumping behind the siding and the end of the roof intersection, install a "kickout" as required by IRC code R905.2.8.3 : "...flashing shall be a min. of 4" high and 4" wide." James Hardie recommends the kickout be angled between 100° - 110° to maximize water deflection

FASTENER REQUIREMENTS

- For wood frame construction a minimum 4d common nails spaced 8" o.c. at panel edges and intermediate framing members spaced up to 24" on center are suitable in most locations*.
- For conventional 20ga steel frame construction a minimum No. 8-18 x 0.323" HD x 1" long ribbed bugle screws spaced 6" o.c. at panel edges and intermediate framing members spaced up to 24" on center are suitable in most locations*.

*Minimum Basic Wind Speed differs by locality. Where specified levels of wind resistance are required, refer to applicable Building Code Compliance Reports.

Manufacturers of ACQ and CA preservative-treated wood recommend spacer materials or other physical barriers to prevent direct contact of ACQ or CA preservative-treated wood and aluminum products. Fasteners used to attach HardieTrim Tabs to preservative-treated wood shall be of hot dipped zinc-coated galvanized steel or stainless steel and in accordance to 2009 IRC R317.3 or 2009 IBC 2304.9.5."

PNEUMATIC FASTENING

James Hardie products can be hand nailed or fastened with a pneumatic tool. Pneumatic fastening is highly recommended. Set air pressure so that the fastener is driven snug with the surface of the siding. A flush mount attachment on the pneumatic tool is recommended. This will help control the depth the nail is driven. If setting the nail depth proves difficult, choose a setting that under drives the nail. (Drive under driven nails snug with a smooth faced hammer - Does not apply for installation to steel framing).

GENERAL FASTENING REQUIREMENTS

Fasteners must be corrosion resistant, galvanized, or stainless steel. Electro-galvanized are acceptable but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. James Hardie is not responsible for the corrosion resistance of fasteners. Stainless steel fasteners are recommended when installing James Hardie® products near the ocean, large bodies of water, or in very humid climates..

- Consult product evaluation or listing for correct fasteners type and placement to achieve specified design wind loads.
- NOTE: Published wind loads may not be applicable to all areas where Local Building Codes have specific jurisdiction. Consult James Hardie Technical Services if you are unsure of applicable compliance documentation.
- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space). (fig. A)
- Do not over-drive nail heads or drive nails at an angle.
- If nail is countersunk, fill hole and add a nail. (fig. B)
- For wood framing, under driven nails should be hit flush to the plank with a hammer (For steel framing, remove and replace nail).
- **Do not use aluminum fasteners, staples, or clipped head nails.**



CUT EDGE TREATMENT

Caulk, paint or prime all field cut edges. James Hardie touch-up kits are required to touch-up ColorPlus products.

CAULKING

For best results use an Elastomeric Joint Sealant complying with ASTM C920 Grade NS, Class 25 or higher or a Latex Joint Sealant complying with ASTM C834. Caulking/Sealant must be applied in accordance with the caulking/sealant manufacturer's written instructions. **Note: OSI Quad as well as some other caulking manufacturers DO NOT allow tooling.**

PAINTING

DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie® Products. James Hardie products must be painted within 180 days for primed product and 90 days for unprimed. 100% acrylic topcoats are recommended. Do not paint when wet. For application rates refer to paint manufacturers specifications. Back-rolling is recommended if the siding is sprayed.

COLORPLUS® TECHNOLOGY CAULKING, TOUCH-UP & LAMINATE

- Care should be taken when handling and cutting James Hardie ColorPlus products. During installation use a wet soft cloth or soft brush to gently wipe off any residue or construction dust left on the product, then rinse with a garden hose
- Touch up nicks, scrapes and nail heads using the ColorPlus® Technology touch-up applicator. Touch-up should be used sparingly. If large areas require touch-up, replace the damaged area with new HardieSoffit® panel with ColorPlus Technology.
- Laminate sheet must be removed immediately after installation of each course.
- Terminate non-factory cut edges into trim where possible, and caulk. Color matched caulks are available from your ColorPlus dealer.
- Treat all other non-factory cut edges using the ColorPlus Technology edge coaters, available from your ColorPlus® product dealer.

Note: James Hardie does not warrant the usage of third party touch-up or paints used as touch-up on James Hardie ColorPlus products.

Problems with appearance or performance arising from use of third party touch-up paints or paints used as touch-up that are not James Hardie touch-up, will not be covered under the James Hardie ColorPlus Limited Finish Warranty.

PAINTING JAMES HARDIE® PRODUCTS WITH COLORPLUS® TECHNOLOGY

When repainting ColorPlus products, James Hardie recommends the following regarding surface preparation and topcoat application:

- Ensure the surface is clean, dry, and free of any dust, dirt, or mildew
- Repriming is normally not necessary
- 100% acrylic topcoats are recommended
- DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie® Products.
- Apply finish coat in accordance with paint manufacturers written instructions regarding coverage, application methods, and application temperature
- DO NOT caulk nail heads when using ColorPlus products, refer to the ColorPlus touch-up section

RECOGNITION: HardieSoffit Panel complies with ASTM C1186 in so doing meets the Fiber-Cement Siding code requirements in the 2006 International Building Code® Section 1404.10 and 1405.15, the 2009/12 International Building Code Section 1404.10 and 1405.16; and the 2006/09/12 International Residential Code® for One- and Two-Family Dwellings Table R703.4 and section R703.10. HardieSoffit panel is also recognized for application in the following: State of Florida Product Approval FL13265, Dade County, Florida NOA No. 13-0311.07, U.S. Dept. of HUD Materials Release 1263, Texas Department of Insurance Product Evaluation EC-23, City of New York MEA 223-93-M, and California DSA PA-019. These documents should also be consulted for additional information concerning the suitability of this product for specific applications

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Additional Installation Information,
Warranties, and Warnings are available at
www.jameshardie.com



WGL - Exterior Glazing

EXTERIOR GLAZING

1/4", Condition C (other coated glass...

Manufacturer: AGC Glass Company North America
Style/Series: Comfort Select 40

Sales Rep

Primary

Customer Service

Email: No.Email.483

Office Phone: 800.251.0441

Attributes

1/4", Condition C (other coated glass), Type I (transparent glass, flat), Class I (clear), Quality q3 (glazing select), with coating.
Low E Coating: Side [2] [3] on insulated units.

Type: Coated Low Emissivity Glass

DIMENSIONS

Dimension Explanation: Refer to Design Guideline Drawings

MATERIAL/FINISH

Color: Clear

PERFORMANCE

Quality Standards: ASTM C1036 "Standard Specification for Flat Glass"; "GANA Glazing Manual"

MISCELLANEOUS

Warranty: A. General: Warranties shall be in addition to, and not a limitation of, other rights the Owner may have under the Contract Documents.

B. All material shall be free from manufacturer defects and installation workmanship. Any material or workmanship judged to be defective shall be replaced at no cost to the Owner.

C. Insulating glass units shall be jointly guaranteed for a period of ten (10) years by the manufacturer and installer against obstruction of vision between interior glass surfaces caused by failure of the hermetic seal. Units damaged during guarantee period shall be replaced at no cost to the Owner.

CUSTOM FIELDS

Product: NA

Eco-Feature(s) *as per manufacturer: NA

Glass Type: III

Notes

1) Visible Light Transmittance (VLT): 72

IMAGE NOT
AVAILABLE

- 2) Solar Heat Gain Coefficient (SHGC): 0.40
- 3) Light to Solar Gain (LSG) Ratio: 1.83

EXTERIOR GLAZING

1/4", Condition C (other coated glass...

Manufacturer: Guardian Industries

Style/Series: Sunguard SN-68

Sales Rep

Primary

Customer Service

Email: No.Email.483

Office Phone: 800.251.0441

Attributes

1/4", Condition C (other coated glass), Type I (transparent glass, flat), Class I (clear), Quality q3 (glazing select), with coating.

Low E Coating: Side [2] [3] on insulated units.

Type: Coated Low Emissivity Glass

DIMENSIONS

Dimension Explanation: Refer to Design Guideline Drawings

MATERIAL/FINISH

Color: Clear

PERFORMANCE

Quality Standards: ASTM C1036 "Standard Specification for Flat Glass"; "GANA Glazing Manual"

MISCELLANEOUS

Warranty: A. General: Warranties shall be in addition to, and not a limitation of, other rights the Owner may have under the Contract Documents.

B. All material shall be free from manufacturer defects and installation workmanship. Any material or workmanship judged to be defective shall be replaced at no cost to the Owner.

C. Insulating glass units shall be jointly guaranteed for a period of ten (10) years by the manufacturer and installer against obstruction of vision between interior glass surfaces caused by failure of the hermetic seal. Units damaged during guarantee period shall be replaced at no cost to the Owner.

CUSTOM FIELDS

Product: NA

Eco-Feature(s) *as per manufacturer: NA

Glass Type: III

Notes

1) Visible Light Transmittance (VLT): 68

IMAGE NOT
AVAILABLE

- 2) Solar Heat Gain Coefficient (SHGC): 0.38
- 3) Light to Solar Gain (LSG) Ratio: 1.79

EXTERIOR GLAZING

1/4", Condition C (other coated glass...

Manufacturer: Vitro Architectural Glass

Style/Series: Solarban 60 Solar Control Low-E Glass

Sales Rep

Primary

Customer Service

Email: No.Email.477

Office Phone: 855.887.6457

Attributes

1/4", Condition C (other coated glass), Type I (transparent glass, flat), Class I (clear), Quality q3 (glazing select), with coating.

Low E Coating: Side [2] [3] on insulated units.

Type: Coated Low Emissivity Glass

DIMENSIONS

Dimension Explanation: Refer to Design Guideline Drawings

MATERIAL/FINISH

Color: Clear

PERFORMANCE

Quality Standards: ASTM C1036 "Standard Specification for Flat Glass"; "GANA Glazing Manual"

MISCELLANEOUS

Warranty: A. General: Warranties shall be in addition to, and not a limitation of, other rights the Owner may have under the Contract Documents.

B. All material shall be free from manufacturer defects and installation workmanship. Any material or workmanship judged to be defective shall be replaced at no cost to the Owner.

C. Insulating glass units shall be jointly guaranteed for a period of ten (10) years by the manufacturer and installer against obstruction of vision between interior glass surfaces caused by failure of the hermetic seal. Units damaged during guarantee period shall be replaced at no cost to the Owner.

CUSTOM FIELDS

Product: NA

Eco-Feature(s) *as per manufacturer: NA

Glass Type: III

Notes

1) Visible Light Transmittance (VLT): 70

IMAGE NOT
AVAILABLE

-
- 2) Solar Heat Gain Coefficient (SHGC): 0.38
 - 3) Light to Solar Gain (LSG) Ratio: 1.85

EXTERIOR GLAZING

1/4", Condition C (other coated glass...

Manufacturer: Viracon, Inc.

Style/Series: VE1-2M

Sales Rep

Primary

Customer Service

Email: No.Email.315

Office Phone: (800) 533-2080

Attributes

1/4", Condition C (other coated glass), Type I (transparent glass, flat), Class I (clear), Quality q3 (glazing select), with coating.

Low E Coating: Side [2] [3] on insulated units.

Type: Coated Low Emissivity Glass

DIMENSIONS

Dimension Explanation: Refer to Design Guideline Drawings

MATERIAL/FINISH

Color: Clear

PERFORMANCE

Quality Standards: ASTM C1036 "Standard Specification for Flat Glass"; "GANA Glazing Manual"

MISCELLANEOUS

Warranty: A. General: Warranties shall be in addition to, and not a limitation of, other rights the Owner may have under the Contract Documents.

B. All material shall be free from manufacturer defects and installation workmanship. Any material or workmanship judged to be defective shall be replaced at no cost to the Owner.

C. Insulating glass units shall be jointly guaranteed for a period of ten (10) years by the manufacturer and installer against obstruction of vision between interior glass surfaces caused by failure of the hermetic seal. Units damaged during guarantee period shall be replaced at no cost to the Owner.

CUSTOM FIELDS

Product: NA

Eco-Feature(s) *as per manufacturer: NA

Glass Type: III

Notes

1) Visible Light Transmittance (VLT): 70

IMAGE NOT
AVAILABLE

- 2) Solar Heat Gain Coefficient (SHGC): 0.38
- 3) Light to Solar Gain (LSG) Ratio: 1.84

EXTERIOR GLAZING

Preassembled units consisting of orga...

Manufacturer: AGC Glass Company North America
Style/Series: 1" Clear Insulating

Sales Rep

Primary

Customer Service

Email: No.Email.483

Office Phone: 800.251.0441

Attributes

Preassembled units consisting of organically sealed panes of glass enclosing a hermetically sealed dehydrated air space and complying with ASTM E2190 for performance classification indicated as well as with other requirements specified for glass characteristics, air, space, sealing system, sealant, space material, and desiccants.

Type: Sealed Insulating Glass Units

DIMENSIONS

Thickness: 1"

MATERIAL/FINISH

Color: Clear

PERFORMANCE

Quality Standards: ASTM C1036 "Standard Specification for Flat Glass"; "GANA Glazing Manual"; ASTM E2190 "Standard Specification for Insulating Glass Unit Performance and Evaluation"

MISCELLANEOUS

Warranty: A. General: Warranties shall be in addition to, and not a limitation of, other rights the Owner may have under the Contract Documents.

B. All material shall be free from manufacturer defects and installation workmanship. Any material or workmanship judged to be defective shall be replaced at no cost to the Owner.

C. Insulating glass units shall be jointly guaranteed for a period of ten (10) years by the manufacturer and installer against obstruction of vision between interior glass surfaces caused by failure of the hermetic seal. Units damaged during guarantee period shall be replaced at no cost to the Owner.

CUSTOM FIELDS

Product: NA

Eco-Feature(s) *as per manufacturer: NA

Glass Type: NA



Notes

Total Thickness: 1"

Thickness of Each Pane: 1/4"

Air Space Thickness: 1/2"

Minimum Assembly U-Value 0.42

Exterior Pane of Glass: Glass Type [I] [or] [II], tempered in locations shown on Drawings

Interior Pane of Glass: Glass [I] [or] [III], tempered in locations shown on Drawings.

Sealing System: Manufacturer's Standard Dual Seal.

Desiccant: Manufacturer's Standard - Either Molecular Sieve or Silica Gel or Blend of Both.

Spacer Material: Manufacturer's Standard Metal, with match assembly frame finish

Special Instructions

Sealing System:

1) Spacer Material: Thermal Plastic Spacer (TPS), IGMAC approved low-conductance spacer bar material with integrated desiccant.

2) Approved Manufacturers:

(a) "TPS Warm edge spacer"; Traco, A Division of Kawneer, a part of Alcoa Building & Construction Systems (800-837-7002)

(b) "SureSeal TPS Spacer Bar"; Virginia Glass and Mirror (800-368-3011)

(c) "TPS Warm Edge Glass"; Floral Glass and Mirror (631 851-0561)

(d) "Warm Edge Spacer"; Technoform North America (330-487-6600)

EXTERIOR GLAZING

Preassembled units consisting of orga...

Manufacturer: Oldcastle Building Envelope
Style/Series: 1" Clear Insulating

Attributes

Preassembled units consisting of organically sealed panes of glass enclosing a hermetically sealed dehydrated air space and complying with ASTM E2190 for performance classification indicated as well as with other requirements specified for glass characteristics, air, space, sealing system, sealant, space material, and desiccants.

Type: Sealed Insulating Glass Units

DIMENSIONS

Thickness: 1"

MATERIAL/FINISH

Color: Clear

PERFORMANCE

Quality Standards: ASTM C1036 "Standard Specification for Flat Glass"; "GANA Glazing Manual"; ASTM E2190 "Standard Specification for Insulating Glass Unit Performance and Evaluation"

MISCELLANEOUS

Warranty: A. General: Warranties shall be in addition to, and not a limitation of, other rights the Owner may have under the Contract Documents.

B. All material shall be free from manufacturer defects and installation workmanship. Any material or workmanship judged to be defective shall be replaced at no cost to the Owner.

C. Insulating glass units shall be jointly guaranteed for a period of ten (10) years by the manufacturer and installer against obstruction of vision between interior glass surfaces caused by failure of the hermetic seal. Units damaged during guarantee period shall be replaced at no cost to the Owner.

CUSTOM FIELDS

Product: NA

Eco-Feature(s) *as per manufacturer: NA

Glass Type: NA

Notes

Total Thickness: 1"

Thickness of Each Pane: 1/4"

Air Space Thickness: 1/2"

Minimum Assembly U-Value 0.42

Exterior Pane of Glass: Glass Type [I] [or] [II], tempered in locations shown on Drawings



Interior Pane of Glass: Glass [I] [or] [III], tempered in locations shown on Drawings.

Sealing System: Manufacturer's Standard Dual Seal.

Desiccant: Manufacturer's Standard - Either Molecular Sieve or Silica Gel or Blend of Both.

Spacer Material: Manufacturer's Standard Metal, with match assembly frame finish

Special Instructions

Sealing System:

1) Spacer Material: Thermal Plastic Spacer (TPS), IGMAC approved low-conductance spacer bar material with integrated desiccant.

2) Approved Manufacturers:

(a) "TPS Warm edge spacer"; Traco, A Division of Kawneer, a part of Alcoa Building & Construction Systems (800-837-7002)

(b) "SureSeal TPS Spacer Bar"; Virginia Glass and Mirror (800-368-3011)

(c) "TPS Warm Edge Glass"; Floral Glass and Mirror (631 851-0561)

(d) "Warm Edge Spacer"; Technoform North America (330-487-6600)

EXTERIOR GLAZING

Preassembled units consisting of orga...

Manufacturer: Viracon, Inc.
Style/Series: 1" Clear Insulating

Sales Rep

Primary

Customer Service
Email: No.Email.315
Office Phone: (800) 533-2080

Attributes

Preassembled units consisting of organically sealed panes of glass enclosing a hermetically sealed dehydrated air space and complying with ASTM E2190 for performance classification indicated as well as with other requirements specified for glass characteristics, air, space, sealing system, sealant, space material, and desiccants.

Type: Sealed Insulating Glass Units

DIMENSIONS

Thickness: 1"

MATERIAL/FINISH

Color: Clear

PERFORMANCE

Quality Standards: ASTM C1036 "Standard Specification for Flat Glass"; "GANA Glazing Manual"; ASTM E2190 "Standard Specification for Insulating Glass Unit Performance and Evaluation"

MISCELLANEOUS

Warranty: A. General: Warranties shall be in addition to, and not a limitation of, other rights the Owner may have under the Contract Documents.

B. All material shall be free from manufacturer defects and installation workmanship. Any material or workmanship judged to be defective shall be replaced at no cost to the Owner.

C. Insulating glass units shall be jointly guaranteed for a period of ten (10) years by the manufacturer and installer against obstruction of vision between interior glass surfaces caused by failure of the hermetic seal. Units damaged during guarantee period shall be replaced at no cost to the Owner.

CUSTOM FIELDS

Product: NA
Eco-Feature(s) *as per manufacturer: NA
Glass Type: NA



Notes

Total Thickness: 1"

Thickness of Each Pane: 1/4"

Air Space Thickness: 1/2"

Minimum Assembly U-Value 0.42

Exterior Pane of Glass: Glass Type [I] [or] [II], tempered in locations shown on Drawings

Interior Pane of Glass: Glass [I] [or] [III], tempered in locations shown on Drawings.

Sealing System: Manufacturer's Standard Dual Seal.

Desiccant: Manufacturer's Standard - Either Molecular Sieve or Silica Gel or Blend of Both.

Spacer Material: Manufacturer's Standard Metal, with match assembly framefinish

Special Instructions

Sealing System:

1) Spacer Material: Thermal Plastic Spacer (TPS), IGMAC approved low-conductance spacer bar material with integrated desiccant.

2) Approved Manufacturers:

(a) "TPS Warm edge spacer"; Traco, A Division of Kawneer, a part of Alcoa Building & Construction Systems (800-837-7002)

(b) "SureSeal TPS Spacer Bar"; Virginia Glass and Mirror (800-368-3011)

(c) "TPS Warm Edge Glass"; Floral Glass and Mirror (631 851-0561)

(d) "Warm Edge Spacer"; Technoform North America (330-487-6600)

WO - Window Operators

WINDOW OPERATORS

Actuators with hand crank and other f...

Manufacturer: Southwest Home Products LLC

Style/Series: Window Ease Window Actuator

Sales Rep

Primary

Customer Service

Email: No.Email.485

Office Phone: 915.209.4584

Attributes

Actuators with hand crank and other features which enable window system to operate within ADAAG, UFAS, and ANSI A117.1 standards. Actuator device to operate vertical or horizontal sliding windows.

Type: Window Actuator

MATERIAL/FINISH

Finish: Cover Finish: Match window color. Standard cover corners and controls shall be black.

PERFORMANCE

Accessories: Side cover closures for surface (wall) mounting, shallow jamb mounting or center ganged or mulled window trim. Special mounting hardware for ganged or mulled window. Oversize window kit. Heavy duty drive for windows over 35lbs and up to 55lbs operating force. Alternative crank handles. Custom (non-standard) sash or chassis brackets and adapters. Crank or latch control extension(s) kits.

MISCELLANEOUS

Warranty: Furnish a written guarantee which shall cover the periods stated below from and after the completion of the building and its acceptance by the Owner.

Warranty to cover system installation and all components required to actuate windows. In event of failure, warranty shall provide for replacement parts, removal, installation, and repair.

For a period of one (1) year after final acceptance by the Owner. Hardware failing to comply with warranty shall be removed and replaced with new material including labor at no cost to Owner.

Notes

Manual Hand Operation [Jamb Mounted] [Sill Mounted]

Technical features:

1. Actuator maintains inherent operating range of window.
2. All actuator control functions from one location.
3. Internal balance mechanism to ensure tight weather gasket

IMAGE NOT
AVAILABLE

closure.

4. Emergency escape and rescue opening requirement in eight crank revolutions or less.
5. Synchronous two sided pull for jam resistant operation.
6. Clutching or power disengagement capability shall prevent damage to window or window actuator due to occasional excessive operational force.
7. "Free wheeling" emergency egress feature to ensure compliance with Life Safety Code 101.
8. Latching feature capable of infinite number of latched open window positions.
9. Actuator shall not require routine maintenance and shall essentially be self adjusting and maintenance free.

Materials:

1. All parts to be corrosion resistant.
2. Bearings: Self lubricating ball bearings.

Special Instructions

Special Cover finishes available: Special powder coating, high solid paint, anodized available. Standard covers are powder coated bronze or white. Standard cover corners and controls are black.