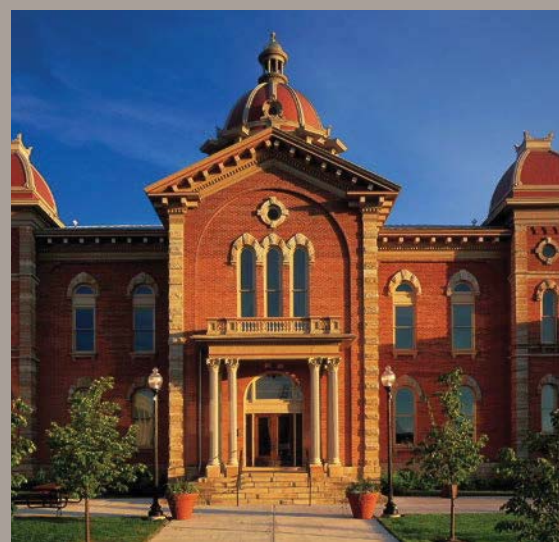




Heritage Series Product Catalog

KOLBE
WINDOWS & DOORS



We're for the visionaries.TM



We're for people who take building to new levels.

We're for people who are passionate about design, who care about the big picture and the smallest detail. We're for people who aren't satisfied with mainstream options. They push the limits of what's possible with the options, innovations and custom solutions that can only be found in Kolbe windows and doors.



We're for expertise.

We're for people who dream of a personalized design experience. That's why you can't find Kolbe windows and doors in the aisles of a home center. You can only purchase our products from a Kolbe dealer, because Kolbe dealers are as passionate about windows and doors as you are about bringing your vision to life.

Leave the details in the hands of a Kolbe window specialist. They'll work with you to make your dream a concrete reality.

We're for possibilities.

We're for people who don't want to compromise their vision to fit anyone else's idea of "standard." We're for handmade touches and virtually limitless options that can't be found within the aisles of a home center.

At Kolbe, each product is truly built to order. Our team members are craftsmen who focus on building one window or door at a time, so they can create custom-built products to fulfill your vision.



We're for quality craftsmanship.

We're for a tradition of excellence that outlasts the latest design fad. The Kolbe story began with a family and a vision. Almost 70 years after the Kolbe brothers began their commitment to producing premium quality windows and doors, products bearing their family name can be found in some of North America's most impressive homes.



We're for innovation.

We're for people who want to take building to new levels of performance, with advancements in not only extraordinary sizes and shapes, but also ground breaking products. We're for creative thinking that redefines what's possible.

Only Kolbe builds windows and doors that do the things you dream about. We're constantly reimagining our windows and doors to take building to new levels.

Let us bring your vision to life.



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Photo courtesy of Kenneth M Wyner Photography, Inc.



Photo courtesy of Kenneth M Wyner Photography, Inc.

The Kolbe Difference

We're well-known for our custom capabilities and have worked with many architects to build unique windows and doors. So, whether you're envisioning windows or doors in a special wood species, looking to bring a historical building back to a state of beauty, or planning an unusual shape or grille pattern, we will work with you to find the perfect solution for your needs.



Residential Construction

Years of innovation at Kolbe have led to products with great design flexibility for high-end residential construction. Whether it's renovation or new construction, we offer products ready to add your signature style into your home. Your design reflects not only an architectural style, but also your individualism – from colonial to contemporary, Kolbe has the products to help you express yourself.



Commercial Capabilities

Each of our windows and doors are built-to-order and uniquely crafted to each project's specifications, providing options and configurations that can be geared toward design solutions for commercial projects. Our technical specialists can help provide support on various aspects of your commercial project.



Historical Renovation

Our reputation of producing high-end windows and doors with attention to intricate details lends itself perfectly to historical renovation projects. Our products are designed to marry traditional design aesthetics with new advances in technology, and we offer numerous options to restore beauty to your project. In addition to providing striking design aesthetics, Kolbe can work with you to meet building codes and historical district requirements.



Energy Efficiency

Kolbe windows and doors are available with a wide variety of glass options to meet your energy needs in any climate. In fact, many Kolbe products meet or exceed ENERGY STAR® guidelines in most climate zones while reducing energy costs for home and business owners.





Sustainable Design

Most components used in Kolbe products are sourced from within 500 miles of our factory, proving we are committed to maintaining ecological sustainability. The species available for our wood products are renewable resources sourced from managed forests, while our standard glass contains 25-30% recycled content. In addition, we have achieved FSC Chain-of-Custody certification and can provide FSC®-certified wood for many of our window and door products (FSC license code FSC-C019541).



Impact Certification

K-Force® impact modifications are available on a number of Kolbe windows and doors. K-Force products are specially designed with the strength and durability to withstand hurricane force winds and flying debris, and are independently tested to meet or exceed strict building codes in coastal regions. There are no unsightly rods or extra locks to fasten, so Kolbe's impact-certified products offer the same beautiful appearance as non-impact products.



Design Options

For almost 70 years, Kolbe products have been all about customization. We offer many options for our windows and doors, including different wood species, custom divided light patterns, tailor-made shapes, and many interior and exterior finishes to perfectly complement the design aesthetic of any project. We're known worldwide for our custom capabilities and have worked with many architects to build distinctive windows and doors – we can help bring your most innovative ideas to life.



Universal Design

Universal design is the concept of creating spaces that are accessible and comfortable for individuals of diverse physical ability levels. Kolbe offers options for a variety of windows and doors that are not only designed to make independent living possible, but to do it with quality, style and flexibility. Kolbe's options such as sill ramps, motorized operators, larger cranks and lever door handles can help make independent living easier.





Photo courtesy of Los Gatos Hotel

Casements

Offering convenience and plenty of daylight, Heritage Series casements provide excellent energy efficiency. Easy to operate handles, corrosion resistant hardware and a secure, concealed multi-point locking system on most products contribute to the integrity of these windows. A multitude of styles are available, including French, push-out, inswing, segment head and half-circle top casements.

*Crank-Out Casements | French Casements | Push-out Casements
Inswing Casements | Picture & Transom Units
Picture Combination | Units Bow & Bay Units | Segment Head & Half-Circle Top Units*



Photo courtesy of Los Gatos Hotel



Photo courtesy of Kenneth M Wyner Photography, Inc.



Crank-Out Casements



Kolbe's crank-out casements combine a simple cranking operation with many options for customization to create a uniquely crafted window with an unobstructed view of the outdoors. By opening and closing easily and effectively, they provide excellent ventilation. Crank handles fold down when not in use to prevent interference with blinds.

Crank-Out Casement Standard Features

- ▶ 1-3/4" thick sash
- ▶ Overall jamb width is 4-9/16"
- ▶ Constructed of pine, with pine interior stops and wood mull casings on mull units
- ▶ Energy efficient, insulating LoE²-270 glass
- ▶ Glazed to the interior with beveled wood glazing beads
- ▶ 1-15/16" exterior brickmould applied
- ▶ All exterior wood parts are preservative-treated
- ▶ Exterior frame and sash are latex primed
- ▶ Fully weatherstripped for a tight seal
- ▶ Interior screens with clay-colored aluminum frames and BetterVue® fiberglass mesh
- ▶ Clay-colored folding handles, operator covers and multi-point locks
- ▶ Dual-arm operators with concealed, adjustable hinges (single-arm operators with concealed, adjustable hinges on "S" Series casements; single-arm operators with Euro hinges for added support on segment head and half-circle top units)

NOTE: All measurements are nominal.

1-15/16" brickmould applied as standard



Hardware

Clay-colored, folding handles are applied to crank-out casement units as standard. Other finishes available are White, Beige, Brass, Antique Brass, Satin Nickel, Antique Nickel, Rustic Umber, and Matte Black. Multi-point lock handles will match operator handle colors.



Folding handle in Clay
(closed)

Folding handle in Clay
(open)

Multi-Point Lock

Heritage Series crank-out casements feature a multi-point locking system as standard. Up to three locking points are operated to quickly and securely lock units from one convenient location. A sleek, slim-line handle and escutcheon makes windows more attractive. Handles and escutcheons are Clay as standard. Other finishes available are White, Beige, Brass, Antique Brass, Satin Nickel, Antique Nickel, Rustic Umber, and Matte Black finishes.



NOTE: Not available on French casements.



Crank-Out Casement Optional Features

Glass (pgs. 184-185):

- ▶ LoE-180
- ▶ LoE² -240
- ▶ LoE³ -366
- ▶ ThermaPlus™ LoE
- ▶ Patterned, bronze- or gray-lite
- ▶ Tempered or laminated
- ▶ Other options standard to the industry

Divided Lites (pgs. 186-187):

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/4", 2-1/4" or 4-1/2" bars
- ▶ True divided lites with 5/8" LoE² insulating glass and 1-1/8" bars
- ▶ Grilles-in-the-airspace
- ▶ Interior removable wood grilles with 7/8" or 1-1/8" bars and full surrounds

Exterior Finishes (pg. 189):

- ▶ K-Kron II exterior paint finish

Other Options: (custom options are also available)

- ▶ French casements
- ▶ Other wood species and FSC-certified wood (pg. 188)
- ▶ Interior prefinishing (pg. 188)
- ▶ Interior casing (pg. 190)
- ▶ Prep for stool
- ▶ 3-1/2" flat or profiled brickmould, backband on 3-1/2" brickmould and other custom millwork (pg. 190)
- ▶ Projected sill nosing, extended sill horns or no nosing

NOTE: All measurements are nominal.

- ▶ Ovolo and square profile glazing beads and interior divided lite bars (pg. 192)
- ▶ Hardware, multi-point locks and operator covers in White, Beige, Brass, Antique Brass, Satin Nickel, Antique Nickel, Rustic Umber, and Matte Black finishes. Oil-Rubbed* finish is available upon request.
- ▶ Universal design casement handle and lock in White or Clay
- ▶ Fall protection devices and window opening control devices
- ▶ Motorized window system
- ▶ Single-arm operators with Euro hinges
- ▶ Screens with White, Beige, Brass, Dark Bronze Anodized, Clear Anodized and Coal Black frames (Brass frames are not available on radius top units)
- ▶ Screens with aluminum or UltraVue® fiberglass mesh (not available with brass frames)
- ▶ Wood wrapped screens (not available on radius top or "S" series units)
- ▶ Retractable screen kit (pg. 191)
- ▶ Retractable screen covers available as beveled (standard) or square
- ▶ Extension jambs (up to 12" applied; over 12" shipped loose for field application)
- ▶ Galvanized steel installation clips
- ▶ Bow and bay options: insulated platforms, support brackets and oak-veneered head and seat boards
- ▶ High performance or K-Force® impact performance modifications



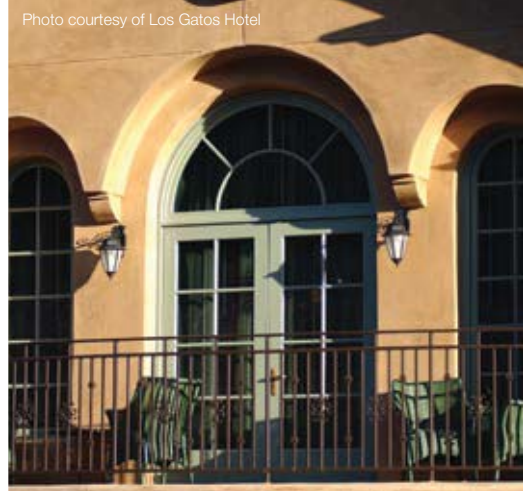
Patio Doors

Heritage Series patio doors add warmth and elegance to any project. Sliding patio doors are the perfect solution for an attractive and space-saving opening to a terrace or garden. Or, choose inswing or French patio doors to provide a convenient way to access a patio or even an adjoining room. To allow for additional light and a panoramic view, mull a series of patio doors together – or include matching transoms or radius units. Stylish hardware with finishes to match any decor will add beauty and originality to your passageway.

Garden-Aire Sliding Patio Doors | Inswing Patio Doors | Folding Doors



Inswing Patio Doors



Swinging patio doors swing in or out to provide convenient access to the outdoors. Corresponding radius or transom units can allow even more light to illuminate your home. Mull together with additional patio doors to create custom-configured panoramic views.

Inswing Patio Door Standard Features

- ▶ 1-3/4" thick sash panel prehung in the 1-5/16" frame
- ▶ Standard jamb width is 4-9/16"
- ▶ LVL locking stiles; stiles and top rails are a nominal 4-5/8" wide; bottom rail is a nominal 7-9/16" high
- ▶ Constructed of pine, with pine interior stops and wood mull casings on muller units
- ▶ Energy efficient, insulating LoE²-270 glass
- ▶ Glazed to the interior with beveled wood glazing beads
- ▶ 1-15/16" exterior brickmould applied
- ▶ All exterior wood parts are preservative-treated
- ▶ Exterior frame is latex primed
- ▶ Fully weatherstripped for a tight seal
- ▶ Toronto handle set in a Bright Brass finish
- ▶ HLS 9000 stainless steel multi-point locking hardware on single door panels, French doors have a 3-point lock on the active panel and a 2-point lock on the less active panel
- ▶ Adjustable, 4" x 3-5/8" hinges with 5/8" radius corners in a Gold-painted finish
- ▶ "Ultra" sliding screens with BetterVue® fiberglass mesh and extruded aluminum frames
- ▶ Bronze-anodized aluminum, self-draining exterior sill with an oak interior threshold

NOTE: All measurements are nominal.

1-15/16" brickmould
applied as standard





Inswing Patio Door Optional Features

Glass (pgs. 184-185): (all door glass is tempered)

- ▶ LoE-180
- ▶ LoE²-240
- ▶ LoE³-366
- ▶ ThermaPlus™ LoE
- ▶ Patterned, bronze- or gray-lite
- ▶ Laminated glass
- ▶ Other options standard to the industry

Divided Lites (pgs. 186-187):

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/4", 2-1/4", or 4-1/2" bars
- ▶ True divided lites with 5/8" LoE² insulating glass and 1-1/8" bars
- ▶ Grilles-in-the-airspace
- ▶ Interior removable wood grilles with 7/8" or 1-1/8" bars and full surrounds

Exterior Finishes (pg. 189):

- ▶ Urethane primer
- ▶ K-Kron II exterior paint finish

Other Options: (custom options are also available)

- ▶ 3" or 6" optional stiles
- ▶ Optional 12 5/8" bottom rail
- ▶ Other wood species and FSC-certified wood (pg. 188)
- ▶ Interior prefinishing (pg. 188)
- ▶ Interior casing (pg. 190)
- ▶ 3-1/2" flat or profiled brickmould, backband on 3-1/2" brickmould and other custom millwork (pg. 190)
- ▶ Ovolo and square profile glazing beads and interior divided lite bars (pg. 192)

NOTE: All measurements are nominal.

[†] Dallas handle set is only available in Bright Brass PVD, Satin Nickel PVD, Matte Black, and Smoky Gray PVD.

*The Oil-Rubbed finish is a living finish, which means that it will change appearance over time with use.

- ▶ Toronto, München, Verona and Dallas[†] handle set in Bright Brass PVD, Antique Brass, Satin Nickel PVD, Antique Nickel PVD, Oil-Rubbed*, Rustic Umber, Matte Black, or Smoky Gray PVD finishes (pg. 136)
- ▶ 2-point flush bolt lock on less active panel of French doors
- ▶ Single-point locking system
- ▶ Adjustable, 4" x 3-5/8" hinges with 5/8" radius corners in Bright Brass, Bright Brass PVD, Antique Brass, Brushed Chrome PVD, Satin Nickel, Satin Nickel PVD, Antique Nickel, Smoky Gray PVD, Oil-Rubbed*, Rustic Umber and Matte Black finishes (pg. 137)
- ▶ Non-adjustable, residential, 4" x 4" ball-bearing hinges with 1/4" radius corners in Bright Brass, Antique Brass, Satin Nickel, Antique Nickel, Stainless Steel, Oil-Rubbed*, and Matte Black finishes (pg. 137)
- ▶ Non-adjustable, commercial-grade, 4" x 4" ball-bearing hinges with square corners in Bright Brass, Antique Brass, Stainless Steel, Oil-Rubbed* Matte Black, and Satin Nickel finishes (pg. 137)
- ▶ Non-adjustable, commercial-grade, 4-1/2" x 4-1/2" hinges in Bright Brass, Oil-Rubbed*, and Stainless Steel finishes (pg. 137)
- ▶ Self-closing, swinging screen includes a spring-loaded lock, aluminum screen frame to match unit exterior and choice of BetterVue® or UltraVue® fiberglass mesh or aluminum mesh
- ▶ Clear Anodized weep sill
- ▶ Adjustable sills in Bronze or Clear Anodized
- ▶ Thermal and non-thermal ADA-compliant sills
- ▶ Factory-applied extension jambs in a variety of sizes
- ▶ Galvanized steel installation clips





























Swinging Patio Door Hardware



Photo courtesy of Group 3 Architecture & John McManus Photography

Hardware

To truly customize your patio door, numerous hardware options are available.

	Bright Brass PVD†	Antique Brass	Satin Nickel PVD†	Antique Nickel PVD†	Oil-Rubbed*	Rustic Umber	Matte Black	Smoky Gray PVD†
Toronto								
München								
Verona								
Dallas		N/A		N/A	N/A	N/A		

† PVD (Physical Vapor Deposition) finish is an application over the color which helps protect the hardware against tarnishing, peeling and cracking.

*The Oil-Rubbed finish is a living finish, which means that it will change appearance over time with use.



Non-Adjustable Hinges

Residential, 4" x 4"
ball-bearing, with
1/4" radius corners



Bright
Brass



Antique
Brass



Satin
Nickel



Antique
Nickel



Stainless
Steel



Oil-
Rubbed*



Matte
Black

Adjustable Hinges



Gold-
painted



Bright
Brass



Bright
Brass
PVD†



Antique
Brass



Brushed
Chrome
PVD†



Satin
Nickel



Satin
Nickel
PVD†



Antique
Nickel



Smoky
Gray
PVD†



Oil-
Rubbed*



Rustic
Umber



Matte
Black

Non-Adjustable Hinges

Commercial-
grade, 4" x 4"
ball-bearing, with
square corners



Bright
Brass



Antique
Brass



Stainless
Steel



Oil-
Rubbed*



Matte
Black



Satin
Nickel

Commercial-grade,
4-1/2" x 4-1/2"



Bright
Brass



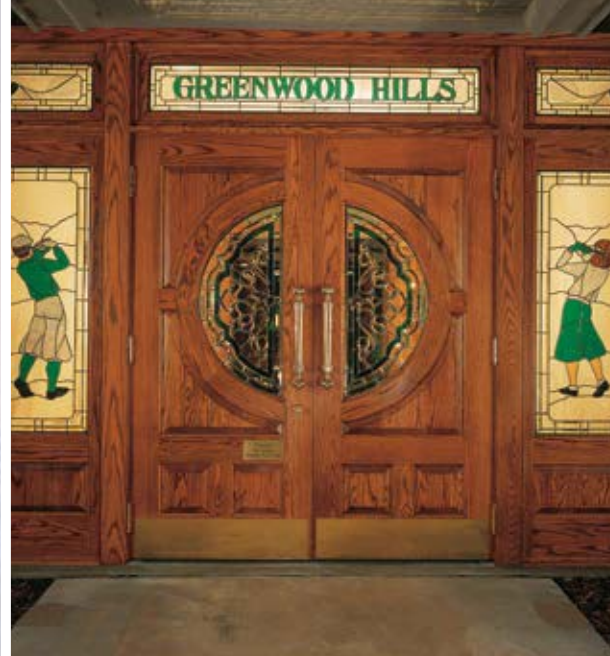
Oil-
Rubbed*



Stainless
Steel

†PVD (Physical Vapor Deposition) finish is an application over the color which helps protect the hardware against tarnishing, peeling and cracking.

*The Oil-Rubbed finish is a living finish, which means that it will change appearance over time with use.



Entrance Doors

Create a dramatic focal point for your project with Heritage Series entrance doors. Choose an inswing or an outswing door, also available with French and raised panel options. To add a unique touch, decorate your entrance with Craftsman Collection doors. Combine with matching transoms and sidelites or select from a variety of special wood species and an array of glass and divided lite options to further enhance your design. Complete the appearance of your entryway by adding one of the attractive hardware options available in a variety of different finishes.

*Inswing Entrance Doors | Outswing Entrance Doors | Craftsman Collection Entrance Doors
Raised Panel Doors | Sidelites & Transoms*



Inswing Entrance Doors



Entrance doors are a defining feature of your home, which is why Kolbe offers a multitude of glass, panel configuration and wood species options to ensure that every entrance door creates a grand statement. Inswing entrance doors are available in single, double and French units, and can be customized with sidelites or transoms to create a distinctive entryway.

Inswing Entrance Door Standard Features

- ▶ 1-3/4" thick sash panel, prehung in the 3/4" frame with a 9/16" stop
- ▶ Standard jamb width is 4-9/16"
- ▶ LVL locking stiles; stiles and top rails are a nominal 4-5/8" wide; bottom rail is a nominal 7-9/16" high on all doors
- ▶ Constructed of pine, with pine interior stops and wood mull casings on mullied units
- ▶ Joints between stiles and rails are fastened with splined hardwood dowels
- ▶ Energy efficient, insulating LoE²-270 glass
- ▶ Glazed to the interior with beveled wood glazing beads
- ▶ 1-15/16" exterior brickmould applied
- ▶ All exterior wood parts are preservative-treated
- ▶ Exterior frame is latex primed
- ▶ Fully weatherstripped for a tight seal
- ▶ Adjustable, 4" x 3-5/8" hinges with 5/8" radius corners in a Gold-painted finish
- ▶ Bronze-anodized aluminum, self-draining exterior sill with an oak interior threshold

NOTE: All measurements are nominal.



1-15/16" brickmould applied as standard



Inswing Entrance Door Optional Features

Glass (pgs. 184-185): (all door glass is tempered)

- ▶ LoE-180
- ▶ LoE² -240
- ▶ LoE³ -366
- ▶ ThermaPlus™ LoE
- ▶ Patterned, bronze- or gray-lite
- ▶ Finely crafted glass in predetermined or custom patterns
- ▶ Laminated glass
- ▶ Other options standard to the industry

Divided Lites (pgs. 186-187):

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/4", 2-1/4", or 4-1/2" bars
- ▶ True divided lites with 5/8" LoE² insulating glass and 1-1/8" bars
- ▶ Grilles-in-the-airpace
- ▶ Interior removable wood grilles with 1-1/8" bars and full surrounds

Exterior Finishes (pg. 189):

- ▶ Urethane primer
- ▶ K-Kron II exterior paint finish (not recommended for raised panel doors)

Other Options: (custom options are also available)

- ▶ 2-1/4" thick door panels
- ▶ Other wood species and FSC-certified wood (pg. 188)
- ▶ Interior prefinishing (pg. 188)
- ▶ Interior casing (pg. 190)
- ▶ 3-1/2" flat or profiled brickmould, backband on 3-1/2" brickmould and other custom millwork (pg. 190)
- ▶ Ovolo and square profile glazing beads and interior divided lite bars (pg. 192)
- ▶ High profile panel moulding
- ▶ 3" or 6" optional stiles and optional 12 5/8" bottom rail
- ▶ Toronto, München, Verona and Dallas[†] handle set in Bright Brass PVD, Antique Brass, Satin Nickel PVD, Antique Nickel PVD, Oil-Rubbed*, Rustic Umber, Matte Black, or Smoky Gray PVD finishes (pg. 160)

NOTE: All measurements are nominal.

[†] Dallas handle set is only available in Bright Brass PVD, Satin Nickel PVD, Matte Black, and Smoky Gray PVD.

*The Oil-Rubbed finish is a living finish, which means that it will change appearance over time with use.

- ▶ HLS 9000 stainless steel multi-point locking hardware on single panel doors, French doors have a 3-point lock on the active panel and a 2-point lock on the less active panel
- ▶ 2-point flush bolt lock on less active panel of French doors
- ▶ Single-point locking system
- ▶ Adjustable, 4" x 3-5/8" hinges with 5/8" radius corners in Bright Brass, Bright Brass PVD, Antique Brass, Brushed Chrome PVD, Satin Nickel, Satin Nickel PVD, Antique Nickel, Smoky Gray PVD, Oil-Rubbed*, Rustic Umber and Matte Black finishes (pg. 161)
- ▶ Non-adjustable, residential, 4" x 4" ball-bearing hinges with 1/4" radius corners in Bright Brass, Antique Brass, Satin Nickel, Antique Nickel, Stainless Steel, Oil-Rubbed*, and Matte Black finishes (pg. 161)
- ▶ Non-adjustable, commercial-grade, 4" x 4" ball-bearing hinges with square corners in Bright Brass, Antique Brass, Stainless Steel, Oil-Rubbed* Matte Black, and Satin Nickel finishes (pg. 161)
- ▶ Non-adjustable, commercial-grade, 4-1/2" x 4-1/2" hinges in Bright Brass, Oil-Rubbed*, and Stainless Steel finishes (pg. 161)
- ▶ "Ultra" sliding screens with fiberglass or aluminum mesh and extruded aluminum frames
- ▶ Self-closing, swinging screen includes a spring-loaded lock, aluminum screen frame to match unit exterior and choice of BetterVue® or UltraVue® fiberglass mesh or aluminum mesh
- ▶ Extension jambs in a variety of sizes
- ▶ Clear Anodized weep sill
- ▶ Adjustable sills in Bronze or Clear Anodized
- ▶ Oak and Mahogany sills
- ▶ Thermal break or non-thermal break ADA-compliant sills
- ▶ Galvanized steel installation clips

Outswing Entrance Doors



Outswing entrance doors are available with the same multitude of options as other entrance doors, but swing outward for areas that have space constraints. Outswing entrance doors are available in single, double and French units, and can be customized with sidelites or transoms to create a distinctive entryway.

Outswing Entrance Door Standard Features

- ▶ 1-3/4" thick sash panel, prehung in the 1-1/16" frame with a 1/2" rabbeted-in stop
- ▶ Standard jamb width is 4-9/16"
- ▶ LVL locking stiles; stiles and top rails are a nominal 4-5/8" wide; bottom rail is a nominal 7-9/16" high on all doors
- ▶ Constructed of pine, with pine interior stops and wood mull casings on mullied units
- ▶ Joints between stiles and rails are fastened with splined hardwood dowels
- ▶ Energy efficient, insulating LoE²-270 glass
- ▶ Glazed to the interior with beveled wood glazing beads
- ▶ 1-15/16" exterior brickmould applied to wood units
- ▶ All exterior wood parts are preservative-treated
- ▶ Exterior frame is latex primed
- ▶ Fully weatherstripped for a tight seal
- ▶ Non-adjustable, residential, 4" x 4" ball-bearing hinges with 1/4" radius corners in a Bright Brass finish
- ▶ Bronze-anodized aluminum bumper sill with oak interior threshold

NOTE: All measurements are nominal.



1-15/16" brickmould applied as standard



Outswing Entrance Door Optional Features

Glass (pgs. 184-185): (all door glass is tempered)

- ▶ LoE-180
- ▶ LoE² -240
- ▶ LoE³ -366
- ▶ ThermaPlus™ LoE
- ▶ Patterned, bronze- or gray-lite
- ▶ Finely crafted glass in predetermined or custom patterns
- ▶ Laminated glass
- ▶ Other options standard to the industry

Divided Lites (pgs. 186-187):

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/4", 2-1/4", or 4-1/2" bars
- ▶ True divided lites with 5/8" LoE² insulating glass and 1-1/8" bars
- ▶ Grilles-in-the-air space
- ▶ Interior removable wood grilles with 1-1/8" bars and full surrounds

Exterior Finishes (pg. 189):

- ▶ Urethane primer
- ▶ K-Kron II exterior paint finish (not recommended for raised panel doors)

Other Options: (custom options are also available)

- ▶ 3" or 6" optional stiles and optional 12 5/8" bottom rail
- ▶ 2-1/4" thick door panels
- ▶ Other wood species and FSC-certified wood (pg. 188)
- ▶ Interior prefinishing (pg. 188)
- ▶ Interior casing (pg. 190)
- ▶ 3-1/2" flat or profiled brickmould, backband on 3-1/2" brickmould and other custom millwork (pg. 190)
- ▶ Ovolo and square profile glazing beads and interior divided lite bars (pg. 192)
- ▶ High profile panel moulding

- ▶ Toronto, München, Verona and Dallas[†] handle set in Bright Brass PVD, Antique Brass, Satin Nickel PVD, Antique Nickel PVD, Oil-Rubbed*, Rustic Umber, Matte Black, or Smoky Gray PVD finishes (pg. 160)
- ▶ HLS 9000 stainless steel multi-point locking hardware on single panel doors, French doors have a 3-point lock on the active panel and a 2-point lock on the less active panel
- ▶ 2-point flush bolt lock on less active panel of French doors
- ▶ Single-point locking system
- ▶ Non-adjustable, residential, 4" x 4" ball-bearing hinges with 1/4" radius corners in Antique Brass, Satin Nickel, Antique Nickel, Stainless Steel, Oil-Rubbed*, and Matte Black finishes (pg. 161)
- ▶ Adjustable, 4" x 3-5/8" hinges with 5/8" radius corners in Gold Painted, Bright Brass, Bright Brass PVD, Antique Brass, Brushed Chrome PVD, Satin Nickel, Satin Nickel PVD, Antique Nickel, Smoky Gray PVD, Oil-Rubbed*, Rustic Umber and Matte Black finishes (pg. 161)
- ▶ Non-adjustable, commercial-grade, 4" x 4" ball-bearing hinges with square corners in Bright Brass, Antique Brass, Stainless Steel, Oil-Rubbed* Matte Black, and Satin Nickel finishes (pg. 161)
- ▶ Non-adjustable, commercial-grade, 4-1/2" x 4-1/2" hinges in Bright Brass, Oil-Rubbed*, and Stainless Steel finishes (pg. 161)
- ▶ Extension jambs (up to 12" applied; over 12" shipped loose for field application)
- ▶ Clear Anodized bumper sill
- ▶ Oak bumper sills
- ▶ Oak and Mahogany sills
- ▶ Thermal break or non-thermal break ADA-compliant sills
- ▶ Galvanized steel installation clips
- ▶ High performance or K-Force® impact performance modifications for units with or without glass

NOTE: All measurements are nominal.

[†] Dallas handle set is only available in Bright Brass PVD, Satin Nickel PVD, Matte Black, and Smoky Gray PVD.

*The Oil-Rubbed finish is a living finish, which means that it will change appearance over time with use.

Craftsman Collection Doors



Wood panel Craftsman style entrance doors are the perfect match for Arts & Crafts style homes. Constructed of Vertical Grain Douglas Fir, Knotty Alder, or a custom wood species, these doors add classic warmth to any entryway.

Craftsman Door Standard Features

- ▶ 1-3/4" thick door panel
- ▶ Panel is constructed of unfinished vertical grain Douglas Fir
- ▶ Exterior frame is latex primed
- ▶ 5-1/2" wide stiles, 4-1/2" wide top rails, 7-1/2" wide cross rails, and a 7-9/16" bottom rail on all door heights
- ▶ Joints between stiles and rails are fastened with splined hardwood dowels
- ▶ Energy efficient, insulating LoE²-270 glass
- ▶ Glazed to the interior with wood glazing beads
- ▶ All exterior wood parts are preservative-treated
- ▶ Exterior frame is latex primed
- ▶ Ovolo sticking
- ▶ Inswing and outswing operation available

NOTE: All measurements are nominal.

Craftsman door panels may be prehung as inswing or outswing units.



Ovolo Sticking
*(standard, shown on
a raised panel)*



Square Sticking
*(optional, shown on
a flat panel)*



Craftsman Door Optional Features

Glass (pgs. 184-185): (all door glass is tempered)

- ▶ LoE-180
- ▶ LoE² -240
- ▶ LoE³ -366
- ▶ ThermaPlus LoE
- ▶ Patterned, bronze- or gray-lite
- ▶ Finely crafted glass
- ▶ Laminated glass
- ▶ Other options standard to the industry

Divided Lites (pgs. 186-187):

- ▶ Performance divided lites with 1-1/8" bars; wood both interior and exterior

Exterior Finishes (pg. 189): (frames only)

- ▶ Urethane primer
- ▶ K-Kron II exterior paint finish

Other Options: (custom options are also available)

- ▶ Other wood species and FSC-certified wood (pg. 188)
- ▶ Square sticking
- ▶ Interior clear coat or stain (pg. 188)
- ▶ Wire brushing for distressed appearance
- ▶ Mantel detailing
- ▶ Interior casing (pg. 190)
- ▶ 3-1/2" flat or profiled wood brickmould, backband on 3-1/2" brickmould and other custom millwork (pg. 190)
- ▶ Toronto, München, Verona and Dallas[†] handle set in Bright Brass PVD, Antique Brass, Satin Nickel PVD, Antique Nickel PVD, Oil-Rubbed*, Rustic Umber, Matte Black, or Smoky Gray PVD finishes (pg. 160)

NOTE: All measurements are nominal.

[†] Dallas handle set is only available in Bright Brass PVD, Satin Nickel PVD, Matte Black, and Smoky Gray PVD.

*The Oil-Rubbed finish is a living finish, which means that it will change appearance over time with use.





























- ▶ HLS 9000 stainless steel multi-point locking hardware on single doors; 3-point lock on the active door and a 2-point lock on the less active door of French doors
- ▶ 2-point flush bolt lock on the less active door of French doors
- ▶ Single-point locking system
- ▶ Non-adjustable, residential, 4" x 4" ball-bearing hinges with 1/4" radius corners in Bright Brass, Antique Brass, Satin Nickel, Antique Nickel, Stainless Steel, Oil-Rubbed*, and Matte Black finishes (pg. 161)
- ▶ Adjustable, 4" x 3-5/8" hinges with 5/8" radius corners in Gold Painted, Bright Brass, Bright Brass PVD, Antique Brass, Brushed Chrome PVD, Satin Nickel, Satin Nickel PVD, Antique Nickel, Smoky Gray PVD, Oil-Rubbed*, Rustic Umber and Matte Black finishes (pg. 161)
- ▶ Non-adjustable, commercial-grade, 4" x 4" ball-bearing hinges with square corners in Bright Brass, Antique Brass, Stainless Steel, Oil-Rubbed* Matte Black, and Satin Nickel finishes (pg. 161)
- ▶ Non-adjustable, commercial-grade, 4-1/2" x 4-1/2" hinges in Bright Brass, Oil-Rubbed*, and Stainless Steel finishes (pg. 161)
- ▶ Extension jambs in a variety of sizes
- ▶ Oak bumper sills for outswinging doors
- ▶ Oak and Mahogany sills
- ▶ Bronze or Clear Anodized weep sills for inswinging doors
- ▶ Galvanized steel installation clips

Entrance Door Options



Hardware

As standard, inswing entrance and Craftsman inswing doors feature Gold-painted adjustable hinges. Outswing entrance and Craftsman outswing doors feature Bright Brass 4" x 4" non-adjustable hinges with 1/4" radius corners. Handle sets, boring or locking systems are not standard on entrance doors. The following hinges and handles are available as an option.

	Bright Brass PVD†	Antique Brass	Satin Nickel PVD†	Antique Nickel PVD†	Oil-Rubbed*	Rustic Umber	Matte Black	Smoky Gray PVD†
Toronto								
München								
Verona								
Dallas		N/A		N/A	N/A	N/A		

†PVD (Physical Vapor Deposition) finish is an application over the color which helps protect the hardware against tarnishing, peeling and cracking.

*The Oil-Rubbed finish is a living finish, which means that it will change appearance over time with use.



Non-Adjustable Hinges

Residential, 4" x 4"
ball-bearing, with
1/4" radius corners



Bright
Brass



Antique
Brass



Satin
Nickel



Antique
Nickel



Stainless
Steel



Oil-
Rubbed*



Matte
Black

Adjustable Hinges



Gold-
painted



Bright
Brass



Bright
Brass
PVD†



Antique
Brass



Brushed
Chrome
PVD†



Satin
Nickel



Satin
Nickel
PVD†



Antique
Nickel



Smoky
Gray
PVD†



Oil-
Rubbed*



Rustic
Umber



Matte
Black

Non-Adjustable Hinges

Commercial-
grade, 4" x 4"
ball-bearing, with
square corners



Bright
Brass



Antique
Brass



Stainless
Steel



Oil-
Rubbed*



Matte
Black



Satin
Nickel

Commercial-grade,
4-1/2" x 4-1/2"



Bright
Brass



Oil-
Rubbed*



Stainless
Steel

†PVD (Physical Vapor Deposition) finish is an application over the color which helps protect the hardware against tarnishing, peeling and cracking.

*The Oil-Rubbed finish is a living finish, which means that it will change appearance over time with use.



Options

Craftsmanship and artistry are hallmarks of Kolbe products. We build innovative windows and doors with a wide array of options. But, don't let the standard options limit your imagination.

At Kolbe, we love a good challenge. We welcome projects that require special wood species, custom divided lite patterns, unique shapes, custom finish colors, unusual mulling configurations – you dream it, we'll build it. We can even help inspire and develop your designs. Whatever the opening, we will help you fill it with style. Our windows and doors are built to order, which allows you to choose the options that best fit with the design of your home and vision for your project. We offer many customizable options that blend beautifully with your home's décor.



Glass Options

Kolbe offers numerous options to achieve the optimum energy efficiency for the geographic region in which you live.

LoE Coatings

To improve thermal efficiency, microscopically thin coatings are applied to the glass that is used in the insulated glass units incorporated into our windows and doors. The state-of-the-art application of the LoE coating is known as sputter coating. There are a number of coating options available, and the appropriate one should be chosen for either the specific geographic region or building construction design required to help achieve the highest level of energy performance possible. As standard, we use double strength annealed glass in most units, with double-pane insulating LoE²-270 glass. In energy zones with a warmer climate, LoE coatings can be used to significantly block the amount of heat transfer, reducing the load of air conditioning systems. In colder climate zones, LoE coatings can be used to allow for high solar heat gain, resulting in reduced heating and cooling costs throughout the year. LoE coatings also reduce the potential for condensation, as well as provide protection against fading of furniture, fabrics and carpeting. Numerous glass options and combinations are available for different applications and various geographic regions. Special glass requests are also welcomed.

LoE-180

When the weather turns frigid, LoE-180 glass is the perfect cold remedy. It keeps homes warmer and more comfortable by blocking heat loss to the outside and letting the sun's heat stream in to increase solar heat gain.

LoE²-240

Wherever glare is a problem, LoE²-240 glass is a solution to maintain year-round comfort in warmer climates. In summer, it blocks oppressive solar heat gain and maintains cool glass temperatures. When winter rolls around, it keeps inside glass temperatures warm.

LoE²-270

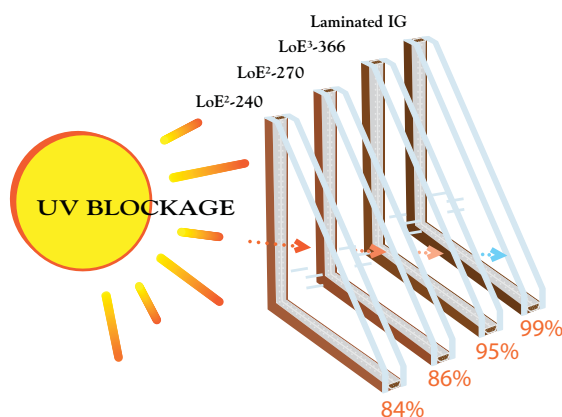
LoE²-270 glass delivers year-round comfort in most types of weather. Offering a balance of high clarity and low solar heat gain, LoE²-270 is standard in most Kolbe products. In summer, it rejects the sun's heat and damaging UV rays. In winter, it reflects heat back into the room.

LoE³-366

For warm climates, LoE³-366 delivers a balance of solar control and high visibility. This coating helps provide protection of fading, blocking up to 95% of the sun's damaging rays.

ThermaPlus™ LoE

ThermaPlus LoE is an additional interior coating applied to help meet the strictest energy requirements and provide protection against heat loss and UV damage.



NOTE: Tested units include argon. The laminate has 1/4" inner pane. Based on Lawrence Berkeley Lab (LBL) Window 5.2 © 2003 analysis for classical UV transmission data.

Argon Gas

Argon gas is a colorless, odorless, non-toxic, naturally-occurring element that is inert, meaning it will not react with other elements or gasses. Because argon gas has a thermal conductivity 30% lower than air, the use of argon gas in a LoE coated insulated glass unit allows it to provide for an incremental improvement to the overall U-factor of the unit. For increased energy efficiency, argon is supplied, at no additional cost, in all LoE coated insulated glass units, with the exception of those units when glass dimensions are less than 14" x 14" or units that require capillary/breather tubes due to being shipped over or installed in high altitude elevations. Units constructed without argon gas will have higher U-values.

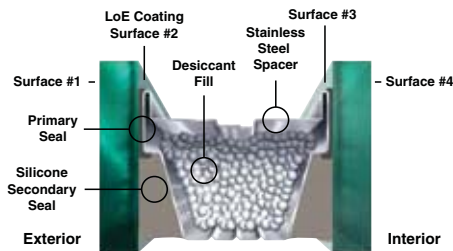
High altitude situations occur when Kolbe double pane insulated glass units are shipped over or installed in areas that begin at 5000 feet above sea level. For triple pane insulated glass units, high altitude begins at 3500 feet above sea level. To find the energy performance for units in high altitude situations, use our energy database at kolbe-kolbe.com and select **Air** as the fill option for double or triple pane glass.

Thermal Efficiency

Inert gas dissipates over the life of the insulated glass unit. Kolbe does not warrant the amount or percentage of argon present in insulating glass or a specific level of unit thermal efficiency at any time after manufacture. Visit the energy data section of our website at kolbe-kolbe.com to select and view your specific window and its listed energy performance values.

Thermo-Edge Spacer

Kolbe's standard glass offerings are complemented by a state-of-the-art, stainless steel spacer bar system on most units. The advanced design of this system incorporates a stainless steel spacer with airtight bent corners and a dual-seal construction of compressed polyisobutylene (PIB) and silicone. Desiccants are contained in the spacer to eliminate the potential for moisture. These features combine to reduce the thermal transmission through the edge seal, creating better energy performance and increasing the roomside glass temperature while reducing the potential for condensation at the sash to glass interface as compared to aluminum spacer designs. Thermo-Edge spacers are one of the many quality details that define Kolbe windows and doors. Thermo-Edge spacers are not available on very small radius units, units with 1/2" insulated glass, with the champagne or dark Bronze Anodized spacer option, units with "pencil" bar grilles-in-the-airspace, or true divided lites. Available in stainless steel (standard) and black painted.



Additional Glass Options

Triple Pane

Provides a greater energy performing window that keeps indoor air warm and comfortable, prevents heat loss and lowers your heating bills. Available with a variety of LoE coatings that best suit your needs.

Mountain Air Energy Package

Specifically designed to meet a U-factor of .30 without argon gas. Consists of a specially-constructed frame, second-generation ThermoPlus glass with LoE³-366 and a capillary/breather tube within the insulating glass unit. Available on Crank-Out Casements and Awnings, Sterling Double Hungs, and Studio/Picture, Transom and Direct Set units to match Crank-Out Casements and Sterling Double Hungs.



Preserve Film

A protective film that protects the glass surfaces from scratches during transit and construction, as well as reducing the time involved in job site clean-up.

Tinted, Colored or Patterned

Provides shading, privacy or visual interest.

Finely Crafted Glass *(not available with argon gas)*

Decorative glass created with a variety of coming options.

Tempered

Standard in Kolbe doors to address safety concerns. Also available in window units to meet specific building codes.

Laminated

Benefits include safety, security, sound control and provides the ultimate in UV blockage.

Impact

Glazing utilized to withstand harsh environmental conditions, especially in coastal regions. Combined with an impact product, such as K-Force®, this product offers the highest level of security.

Neat®

Harnesses the sun's UV rays to loosen dirt so water can rinse it away, leaving windows virtually spotless. A special sputter-coating process makes the exterior glass surface ultra smooth, so the water "sheets off" more readily than it would on uncoated glass, allowing you to spend less time cleaning.

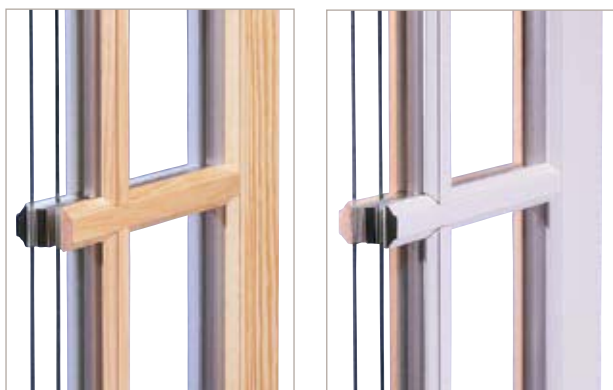
NOTE: Not all glass is available on all products. Please contact your Kolbe dealer for product specifics.

LoE², LoE²-240, LoE²-270, LoE³-366, Neat and Preserve are trademarks of Cardinal IG.

LoE insulating glass with a stainless steel spacer bar carries a 20-year warranty. Not all glass options listed have the same glass warranty. Please contact your dealer for details.

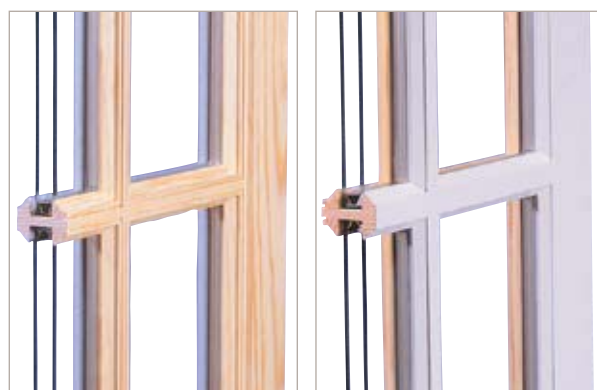
Divided Lites

Expand the character of your home or project by adding one of our divided lite options to your windows and doors. Choose anything from a traditional, colonial-style pattern to a unique, custom design to accentuate the overall appearance of your project. Kolbe offers four types of divided lites: grilles-in-the-airspace, wood removable grilles, performance divided lites and true divided lites. As standard, wood bars have a beveled profile, however, an ovolo profile or a square profile is also available. (See pg. 192, *Glazing Beads & Muntin Bars*.) Divided lite cross section drawings can be found on pgs. 180-181.



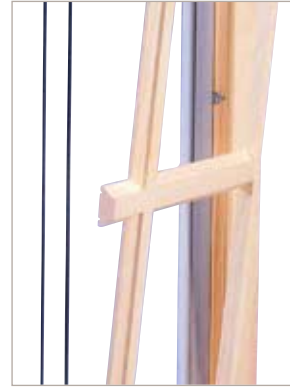
Performance Divided Lites

Kolbe's performance divided lite (PDL) glazing system gives the appearance of true divided lites without sacrificing energy efficiency. Extruded aluminum bars are adhered to the exterior and unfinished pine bars are adhered to the interior of the single lite of insulating glass. Aesthetically pleasing spacer bars are installed within the insulating glass unit. Together, these bars create the illusion of true divided lites. PDL bars are available in 5/8", 7/8", 1-1/8", 1-3/4", 2-1/4" or 4-1/2" bar widths. The exterior finish of the aluminum bars will match the exterior finish on the unit. Variations on the PDL option may include custom grille patterns, custom bar widths or no spacer bars. Some designs may have a composite material for the exterior PDL bar.



True Divided Lites

True divided lites (TDL) give each unit the traditional look often found in historical projects. Units with TDL are comprised of wood muntin bars in between glass panes. The horizontal and vertical, colonial-style wood TDL bars use interlocking half-lap joints. Profile shadow lines enhance the warm, richness of the wood on both the interior and exterior. The exterior finish on the bars will match the exterior finish of the unit. TDL options include custom patterns and bar widths, other wood species and interior stain or paint finishes. Depending on glass options chosen, standard bar widths are available in 7/8" or 1-1/8". TDL glass units are not filled with argon gas.



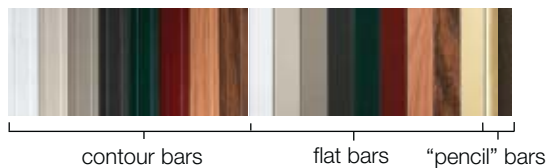
Grilles-in-the-Airspace

Grilles-in-the-airspace are constructed with aluminum bars sealed between two panes of insulating glass, offering the look of divided panes while reducing cleaning time. For units with 7/8" insulating glass, contoured, 3/4" wide bars are standard in White, Beige, Sand, Rustic, Hartford Green and Chutney. Optional colors are light wood and dark wood faux finishes. Flat, 5/8" wide grille bars are also available in White, Beige, Sand, Rustic, Hartford Green, Chutney, light wood and dark wood faux finishes to the interior and White to the exterior. Also available for 7/8" insulating glass are 5/16" wide Brass and Pewter pencil bars.

Wood Removable Grilles

Wood grilles are built with a full surround frame and bars that interlock at the joints for stability. Grilles are applied to the interior of the window using an exclusive hidden clip system.* This system makes unsightly pins and attachment points unnecessary and removal or replacement easy. As standard, bars are constructed of unfinished pine and are 7/8" wide on windows and 1-1/8" wide on doors. Custom grille patterns, bar widths, wood species and interior stains may be available upon request.

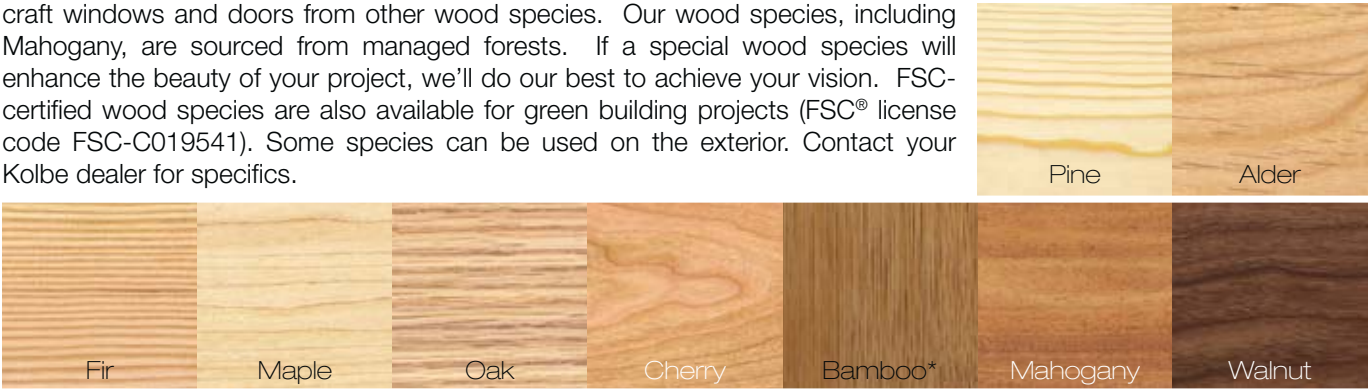
* A clear pin system will be used for Garden-Aire sliding patio doors.



Wood Finish Options

Wood Species

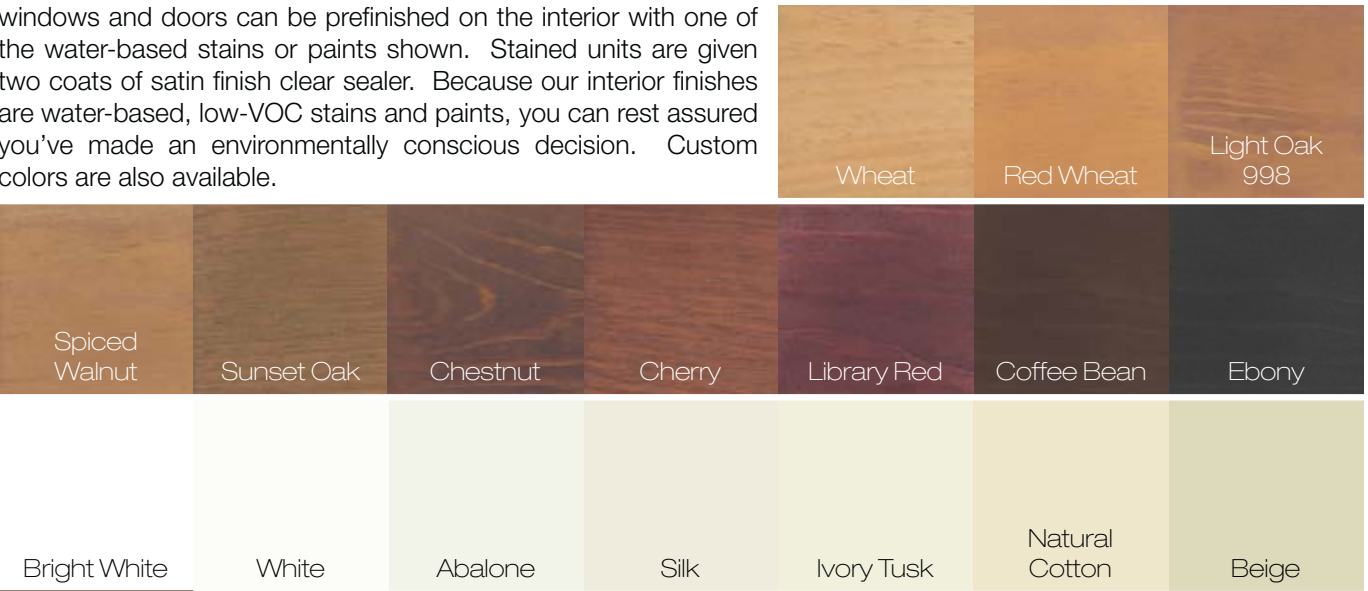
Most of our wood windows and doors are built from pine as standard, but we often craft windows and doors from other wood species. Our wood species, including Mahogany, are sourced from managed forests. If a special wood species will enhance the beauty of your project, we'll do our best to achieve your vision. FSC-certified wood species are also available for green building projects (FSC® license code FSC-C019541). Some species can be used on the exterior. Contact your Kolbe dealer for specifics.



* Sourced from companies such as Lamboo, Inc.

Interior Finish Options

For units that are ready to install upon delivery, Kolbe's wood windows and doors can be prefinished on the interior with one of the water-based stains or paints shown. Stained units are given two coats of satin finish clear sealer. Because our interior finishes are water-based, low-VOC stains and paints, you can rest assured you've made an environmentally conscious decision. Custom colors are also available.



Printed images of wood species and stain options will vary from actual product colors. Selections should be made based on color samples available from your Kolbe dealer. Stain colors are shown on pine. A double coat clear finish is also offered. Since no two trees are identical, wood can be expected to differ both in color and graining. These factors will influence the stain's final color.

Exterior Finish Options

Primer

Most Heritage Series windows are coated on the exterior with latex primer, ready for your choice of topcoat. An optional urethane primer is available on most Heritage Series windows and doors.

K-Kron II

Kolbe's Heritage Series wood products can be coated on the exterior with K-Kron II, our exterior paint finish that offers a way to enhance and preserve the look of wood windows and doors. Custom colors are also available. Contact your dealer for exterior finish samples. The K-Kron II finishing system consists of three steps. **Step 1:** Wood preservatives are applied to help resist water, insects and fungus. **Step 2:** A urethane primer is applied using a controlled multi-step spray method to help seal the wood and provide a tough bonding surface for the final topcoat. **Step 3:** The topcoat finish is applied using a controlled spray system, which provides consistent coverage to the exterior surface. K-Kron II carries a 10-year warranty to help resist chalking, chemical attack, as well as damage from salt, wind, sleet and snow. K-Kron II is offered in over 30 colors, with custom colors available.



Some options for our products may have limited color offerings or may incur a nominal charge. Check with your Kolbe dealer for further details on pricing and availability. Printed images of exterior finishes may vary slightly from actual colors. Selections should be made based on actual color samples available from your Kolbe dealer.



Technical Data

Kolbe windows and doors offer not only superior craftsmanship, but also superior performance. Our windows and doors undergo independent testing to ensure the highest quality products available. With Kolbe's participation in programs such as the Energy Star and WDMA Hallmark Certification programs, you can rest assure that our products are tested to industry standards, allowing them to meet and exceed today's stricter building codes and standards for energy efficiency.



Energy Performance Data

ENERGY STAR® - United States

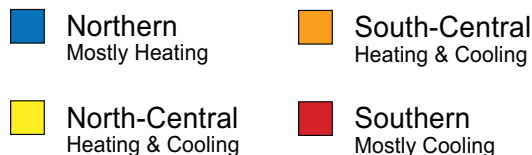
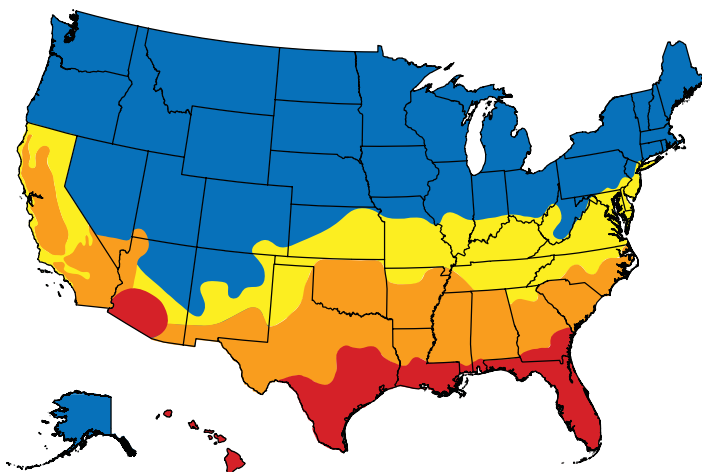


ENERGY STAR is a government-regulated program that was created by the Environmental Protection Agency (EPA), and the U.S. Department of Energy (DOE), to help consumers quickly and easily identify energy saving products. The ENERGY STAR program

uses energy values obtained by window and door manufacturers through the National Fenestration Rating Council (NFRC) program. NFRC ratings are based on the energy performance of the total window or door – both glass and frame.

The ENERGY STAR program for the United States divides the nation into four separate climate zones – Northern, North-Central, South-Central, and Southern.

The performance criteria that needs to be met in order to be ENERGY STAR compliant in a specific climate zone (effective January 1, 2015) is shown in the charts provided.



Kolbe demonstrates a commitment to providing accurate energy data by having products independently simulated, tested, inspected and listed in the NFRC certification program, and making that data available on our website and window labels.

NOTE: Energy performance data and air, water, structural data is updated on a continuous basis. For the most current information, visit www.kolbe-kolbe.com or contact your local Kolbe dealer.

Energy Performance Terminology

- ▶ U-Factor refers to a measure of heat transfer through the window or door unit. A lower U-factor means less heat escapes during winter weather, thus reducing heating costs in cold climates.
- ▶ R-Value refers to resistance to heat flow. A high R-value indicates that a window or door has good heat insulating properties.
- ▶ Solar Heat Gain Coefficient (SHGC) is a measure of how much solar energy is passing through the unit's glass. The lower a window or door unit's SHGC, the less solar heat is transmitted into a room, thus allowing for lower cooling bills in hot climates.
- ▶ Visible Transmittance (VT) is a measure of the portion of visible light that passes through a window or door. The higher a window or door unit's VT Total, the more visible light is transmitted into a room. This value is influenced by both the glass selection and by the ratio of glazing and frame area.

2015 ENERGY STAR Qualification Criteria for Windows

Climate Zones - U.S.		U-Factor	SHGC
■	Northern**	≤ 0.30	Any
	Northern**	$= 0.31$	≥ 0.35
	Northern**	$= 0.32$	≥ 0.40
■	North-Central	≤ 0.30	≤ 0.40
■	South-Central	≤ 0.30	≤ 0.25
■	Southern	≤ 0.40	≤ 0.25

** Northern zone windows can meet prescriptive (1st row) or alternative energy performance (2nd & 3rd row) criteria to qualify for ENERGY STAR.

2016 ENERGY STAR Qualification Criteria for Windows

The effective date for the Northern Zone prescriptive and equivalent energy performance criteria for windows is January 1, 2016. North-Central, South-Central, and Southern criteria will continue to follow 2015 guidelines.

Climate Zones - U.S.		U-Factor	SHGC
■	Northern**	≤ 0.27	Any
	Northern**	$= 0.28$	≥ 0.32
	Northern**	$= 0.29$	≥ 0.37
	Northern**	$= 0.30$	≥ 0.42

** Northern zone windows can meet prescriptive (1st row) or alternative energy performance (2nd, 3rd, and 4th rows) criteria to qualify for ENERGY STAR.

2015 ENERGY STAR Qualification Criteria for Doors

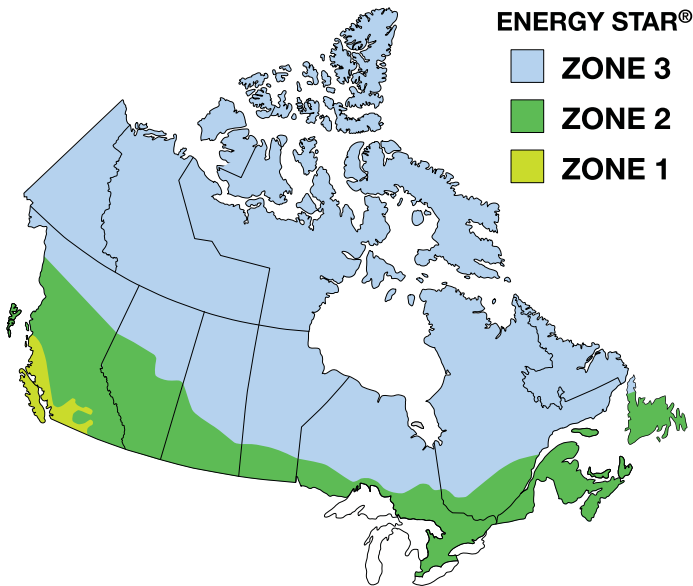
Glazing	U-Factor	SHGC	
Opaque	≤ 0.17	No rating	
$\leq 1/2$ -Lite	≤ 0.25	≤ 0.25	
$> 1/2$ -Lite	≤ 0.30	Northern North-Central	≤ 0.40
		Southern South-Central	≤ 0.25

ENERGY STAR® – Canada

Products may comply for Canada's ENERGY STAR program based on these compliance paths: their total U-factor, their Energy Rating (ER), or both. The Energy Rating is based on a product's overall performance based on three criteria: (1) solar heat gain, (2) U-factor, and (3) average air tightness. The higher the ER number, the better the product's thermal performance.



The U-factor and ER criteria for Canada's three climate zones is shown in the charts provided. For more detailed information about their Energy Rating system and Kolbe products that qualify for Canada's ENERGY STAR Program, visit their website at www.oe.nrcan.gc.ca/energystar.



ENERGY STAR - Canada Qualification Criteria for Windows and Sliding Doors† after February 1, 2015

Zone	COMPLIANCE PATHS		
	Minimum Energy Rating (ER)	or	Maximum U-Factor / Minimum ER
1	25	or	≤ 0.28 / 16
2	29	or	≤ 0.25 / 20
3	34	or	≤ 0.21 / 24

† Windows and sliding doors can qualify based on either a combination of the U-factor & a minimum Energy Rating, or just the Energy Rating.

ENERGY STAR - Canada Qualification Criteria for Swinging Doors after February 1, 2015

Zone	COMPLIANCE PATHS		
	Minimum Energy Rating (ER)	or	Maximum U-Factor
1	25	or	≤ 0.28
2	29	or	≤ 0.25
3	34	or	≤ 0.21

U-FACTOR EQUIVALENCY	
Imperial	Metric
0.35	2.00
0.32	1.80
0.28	1.60
0.25	1.40
0.21	1.20

NOTE: Energy performance data and air, water, structural data is updated on a continuous basis. For the most current information, visit www.kolbe-kolbe.com or contact your local Kolbe dealer.



For professionals: www.kolbe-kolbe.com
For homeowners: www.kolbewindows.com

KOLBE
WINDOWS & DOORS

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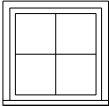
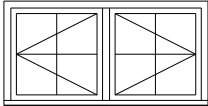
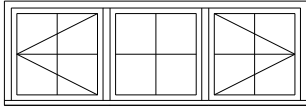
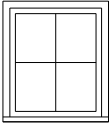
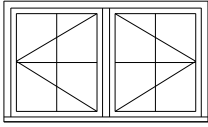
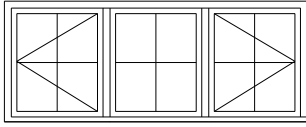
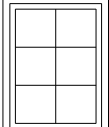
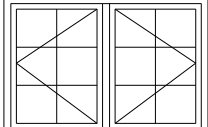
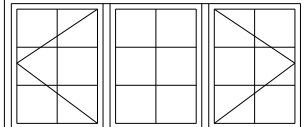
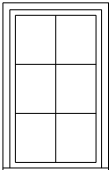
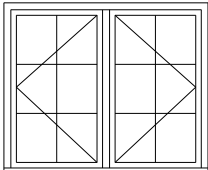
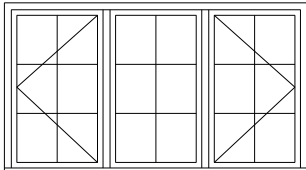
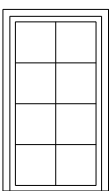
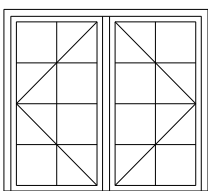
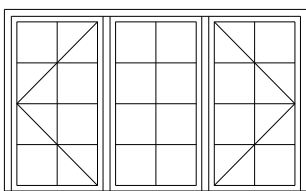
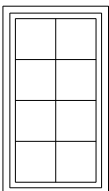
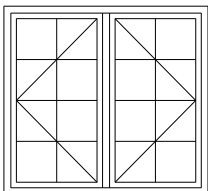
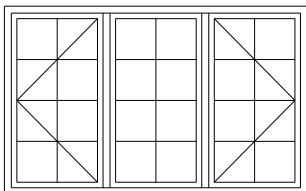
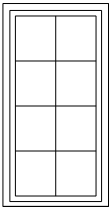
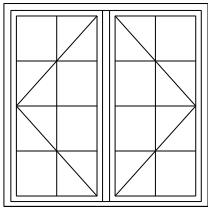
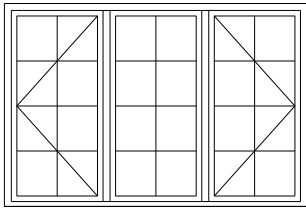
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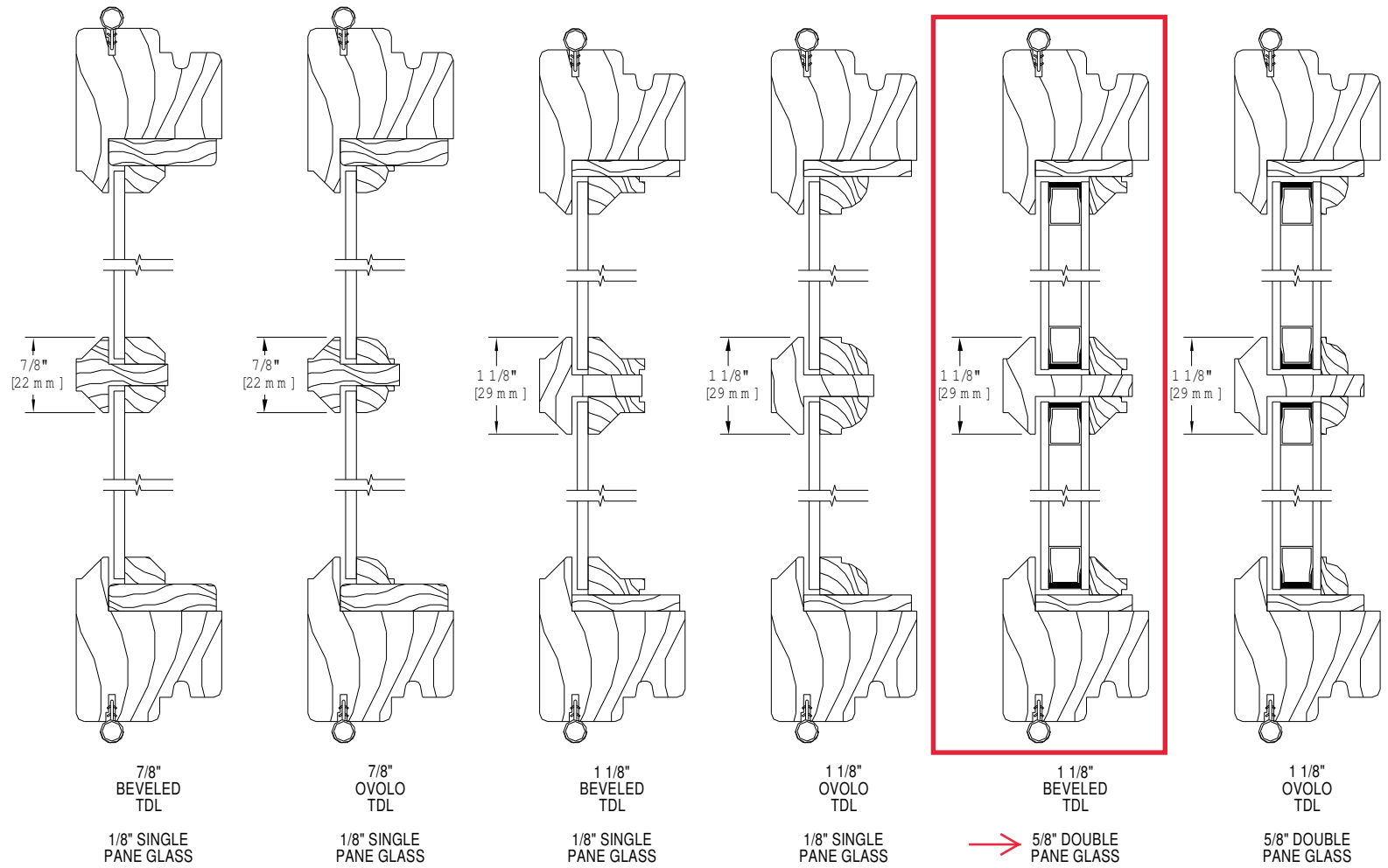
WINDOWS & DOORS

HERITAGE SERIES
CRANK-OUT/PUSH-OUT CASEMENT - SINGLE TO 3-WIDE UNITS
UNIT DIMENSION WIDTH 3' 2-1/2" TO 9' 2-1/2" - HEIGHT 3' 2" TO 6' 2" - E-SERIES - ELEVATIONS

U.D. R.O. G.S. G.S.**	3'2 1/2" 3'0 1/2" 31 1/4" 29 13/16"	6'2 1/2" 6'0 1/2" 31 1/4" 29 13/16"	9'2 1/2" 9'0 1/2" 31 1/4" 29 13/16"
3'2" 3'0 1/2" 31 1/4" 29 13/16"			
	E13	E23	E33
3'8" 3'6 1/2" 37 1/4" 35 13/16"			
	E136*	E236*	E336*
4'2" 4'0 1/2" 43 1/4" 41 13/16"			
	E14*	E24*	E34*
4'8" 4'6 1/2" 49 1/4" 47 13/16"			
	E15*	E25*	E35*
5'2" 5'0 1/2" 55 1/4" 53 13/16"			
	E156*	E256*	E356*
5'8" 5'6 1/2" 61 1/4" 59 13/16"			
	E156*	E256*	E356*
6'2" 6'0 1/2" 67 1/4" 65 13/16"			
	E16*	E26*	E36*

* These units meet most national Emergency Escape & Rescue requirements.

** Glass size for push-out casements



HERITAGE SERIES
 PUSH-OUT CASEMENT - OPERATING - OPTIONAL SQUARE STOPS
 4 9/16" JAMB - MULTI-POINT OR SINGLE-POINT LOCK - NO SCREEN
 DOUBLE PANE GLASS
 VERTICAL CROSS SECTION

