

KOLBE
WINDOWS & DOORS

Heritage Series





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Photo courtesy of Kenneth M. Wyner Photography, Inc.



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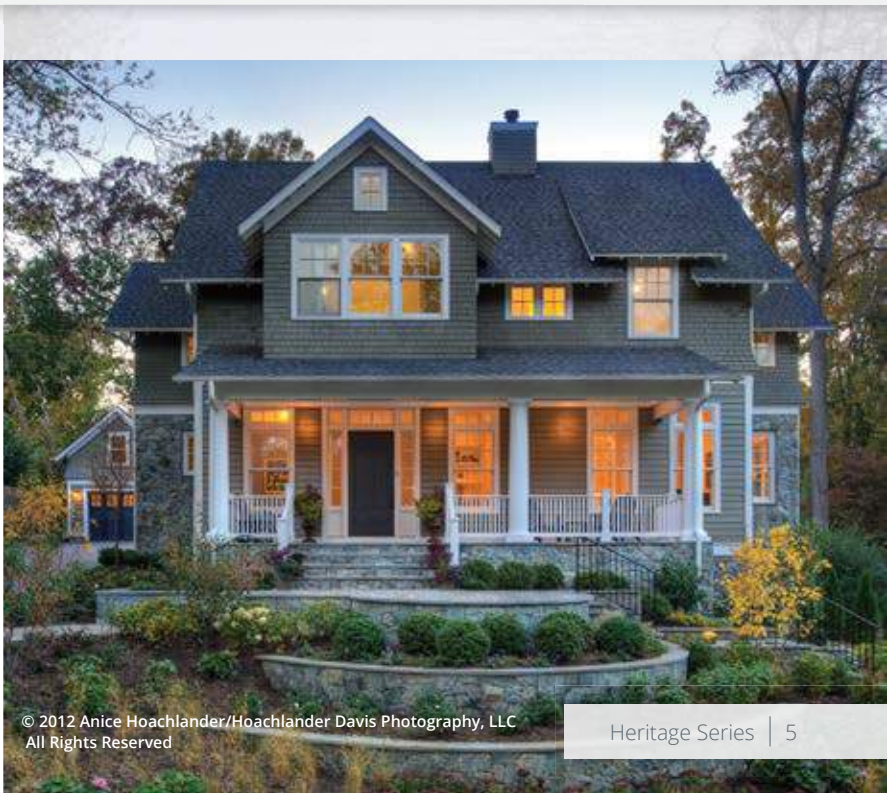
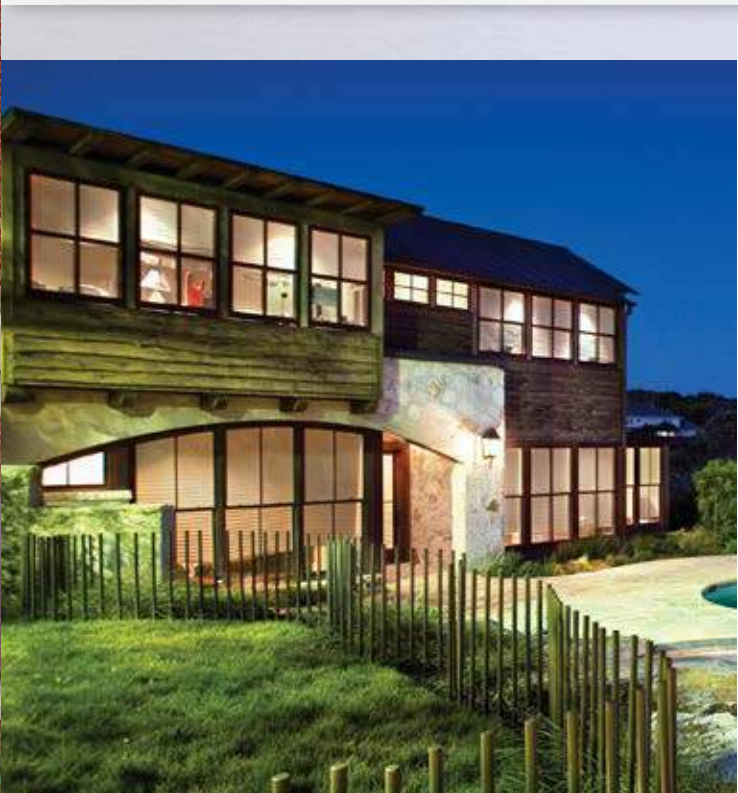


The Heritage Series

Kolbe's Heritage Series windows and doors are carefully crafted with a wood interior and exterior, making it possible to create architecturally intricate and historically accurate details. Choose from an extensive palette of exterior colors, interior wood species and finishes, divided lite profiles and patterns, and more.

The Heritage Series provides:

- Endless capabilities to replicate intricate architectural details
- Divided lite profiles & patterns; aesthetic & efficient glass choices
- Wood interior & exterior in familiar to exotic wood species
- K-Kron II exterior coating provides a high performance finish
- A palette of 40+ exterior & 20 interior pre-finish choices



Residential Construction

Years of innovation at Kolbe have led to products with great design flexibility for residential construction. Whether it's renovation or new construction, we offer products that 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. Uniquely crafted to each project's specifications, Kolbe provides endless options and design solutions in configurations suitable for commercial projects. Our technical specialists can help provide support on various aspects of your commercial project.



Historical Renovation

Our reputation for producing custom-crafted 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 advanced technology and sustainability, and we offer many options to restore beauty to your project while maintaining historic character. In addition to providing aesthetics and efficiency, 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

Due to our commitment to maintaining ecological sustainability, Kolbe sources most of the components used in our window and door products from within 500 miles of our factory. The wood species we use are renewable resources sourced from managed forests, while our standard glass contains 25-30% recycled content. In addition, we can provide Forest Stewardship Council® (FSC®)-certified wood species for many of our window and door products (FSC license code FSC-C019541).



Impact Certification

Impact modifications are available on a number of Kolbe windows and doors. Our 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 over 70 years, Kolbe products have been all about customization. We offer many options for our windows and doors, including wood species, custom divided lite patterns, unique shapes, and many interior and exterior finishes to complement the design aesthetic of any project. We're known worldwide for our custom solutions and have worked closely with architects to build distinctive windows and doors that 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.







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*



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
- ▶ Exterior wood parts are treated
- ▶ Exterior frame and sash are latex primed
- ▶ Interior screens with clay-colored aluminum frames and BetterVue® fiberglass mesh
- ▶ Clay-colored folding handles, operator covers and multi-point locks
- ▶ Corrosion-resistant 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.

Hardware

- ▶ Folding handles with standard Clay-colored finish. Also available in White, Beige, Bright Brass, Antique Brass, Satin Nickel, Antique Nickel, Rustic Umber and Matte Black.
- ▶ Multi-point locking system* *(standard)* with up to three locking points to quickly and securely lock units from one convenient location. Multi-point locking levers will match operator handle colors.

*Not available on French casements.

Folding Handle
(shown in Clay)



Folding Handle with Custodial Lock
(shown in Matte Black)



Multi-Point Locking Lever
(shown in Clay)





Crank-Out Casement Options

Glass (pg. 184)

- ▶ LoE-180
- ▶ LoE³-340
- ▶ LoE³-366
- ▶ ThermaPlus™ LoE
- ▶ Neat®
- ▶ Triple pane
- ▶ Patterned-, bronze-, or gray-lite
- ▶ Tempered or laminated
- ▶ Other options standard to the industry

Divided Lites (pgs. 185-186)

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/8", 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

Screens

- ▶ Screens with White, Beige, Dark Bronze Anodized, Clear Anodized and Coal Black frames
- ▶ Screens with aluminum or UltraVue® fiberglass mesh
- ▶ Wood wrapped screens (not available on radius top or "S" series units)
- ▶ Retractable screen kit
- ▶ Retractable screen covers available as beveled (standard) or square

Exterior Finishes (pg. 183)

- ▶ K-Kron II exterior paint finish

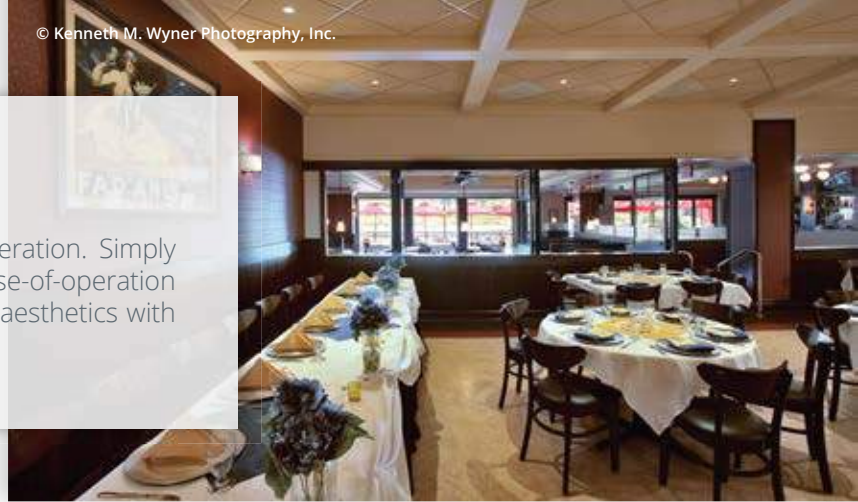
NOTE: All measurements are nominal.

Other Options (custom options are also available)

- ▶ French casements
- ▶ Other wood species and FSC-certified wood (pg. 182)
- ▶ Interior prefinishing (pg. 182)
- ▶ Interior casing
- ▶ Prep for stool
- ▶ Exterior brickmould and casing (pg. 187)
- ▶ Projected sill nosing, extended sill horns or no sill nosing
- ▶ Ovolo and square profile glazing beads and interior divided lite bars (pgs. 185-186)
- ▶ Universal design casement handle and lock in White or Clay (pg. 189)
- ▶ Factory-installed Window Opening Control Device (WOCD) (pg. 188)
- ▶ Motorized window system
- ▶ Single-arm operators with Euro hinges
- ▶ 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 modifications

Push-Out Casements

Kolbe's push-out casements have a uniquely simple operation. Simply unlock a handle to push open or pull closed. Combining ease-of-operation with authentic style, push-out casements offer old-world aesthetics with today's energy efficiency.



Push-Out Casement Standard Features

- ▶ 1-3/4" thick sash
- ▶ Overall jamb width is 4-9/16" (*basic box width is 3-1/2" on wood units, plus extensions*)
- ▶ 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
- ▶ Exterior wood parts are treated
- ▶ Exterior frame and sash are latex primed
- ▶ Single-point lever handle in an Oil-Rubbed* finish
- ▶ Concealed hinges (*segment head and half-circle top units use Tri-Euro hinges for added support*)

NOTE: All measurements are nominal.

Hardware

- ▶ Single-point lever handles in Oil-Rubbed* (*standard*), Natural Brass and Satin Nickel finishes.
- ▶ Multi-point handles available in Oil-Rubbed*, Natural Brass and Satin Nickel finishes.

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

(shown in Oil-Rubbed*)



Lever Handle with Single-Point Lock

(shown in Natural Brass)



(shown in Satin Nickel)



(shown in Oil-Rubbed*)





Push-Out Casement Options

Glass (pg. 184)

- ▶ LoE-180
- ▶ LoE³-340
- ▶ LoE³-366
- ▶ ThermaPlus™ LoE
- ▶ Neat®
- ▶ Triple pane
- ▶ Tempered or laminated
- ▶ Other options standard to the industry

Divided Lites (pgs. 185-186)

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/8", 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 7/8" or 1-1/8" bars and full surrounds

NOTE: All measurements are nominal.

Screens

- ▶ Wood frame hinged/swinging screen or retractable screen with BetterVue® fiberglass mesh (segment head and half-circle top casements are only available with a hinged/swinging screen)
- ▶ Retractable screen covers available as beveled (standard) or square
- ▶ Screens with UltraVue® fiberglass mesh (hinged/swinging screen only)

Exterior Finishes (pg. 183)

- ▶ K-Kron II exterior paint finish

Other Options (custom options are also available)

- ▶ French push-out casements
- ▶ Other wood species and FSC-certified wood (pg. 182)
- ▶ Interior prefinishing (pg. 182)
- ▶ Interior casing
- ▶ Prep for stool
- ▶ Exterior brickmould and casing (pg. 187)
- ▶ Projected sill nosing, extended sill horns or no sill nosing
- ▶ Ovolo and square profile glazing beads and interior divided lite bars (pgs. 185-186)
- ▶ Extension jambs (up to 12" applied; over 12" shipped loose for field application)
- ▶ Galvanized steel installation clips
- ▶ High performance modifications



Lever Handle with Multi-Point Lock
(shown in Natural Brass)



(shown in Satin Nickel)



Inswing Casements

Kolbe's inswing casements are inspired by classic French design with modern updates to meet energy efficiency standards, proving it's possible to honor traditionally beautiful design while making a modern architectural statement. Inswing casements open in for ventilation and are available in single or French units.



Inswing Casement Standard Features

- ▶ Constructed of pine, with pine interior stops and wood mull casings on mullied units
- ▶ 1-3/4" thick sash
- ▶ Bottom rail height is 3-1/2"
- ▶ Overall jamb width is 4-9/16"
- ▶ 1-15/16" exterior brickmould applied
- ▶ Exterior wood parts are treated
- ▶ Exterior frame and sash are latex primed
- ▶ Energy efficient, insulating LoE²-270 glass
- ▶ Glazed to the interior with beveled wood glazing beads
- ▶ A drip-lip applied to the bottom exterior of the sash and a weep channel system on the sill
- ▶ Exterior screens with BetterVue® fiberglass mesh and aluminum screen frames in a variety of colors
- ▶ Bright Brass handle set as standard
- ▶ Sash hang on 3-1/2" x 3-1/2" butt hinges in a Bright Brass finish
- ▶ Multi-point locking hardware secures the unit

NOTE: All measurements are nominal.

Hardware

- ▶ Inswing casement handle sets are available in Bright Brass (*standard*), White, Antique Brass, Bronze-colored, Satin Nickel, Antique Nickel, Brushed Chrome, Oil-Rubbed* and Matte Black.

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

**Handle style available in White and Bronze-colored only.

Inswing Casement Handle
(shown in standard Bright Brass)



Inswing Casement Handle**
(shown in Bronze-colored)





Inswing Casement Options

Glass (pg. 184)

- ▶ LoE-180
- ▶ LoE³-340
- ▶ LoE³-366
- ▶ ThermaPlus™ LoE
- ▶ Neat®
- ▶ Triple pane
- ▶ Tempered or laminated
- ▶ Other options standard to the industry

Divided Lites (pgs. 185-186)

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/8", 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

Screens

- ▶ Screens will match exterior color
- ▶ Screens with aluminum or UltraVue® fiberglass mesh

Exterior Finishes (pg. 183)

- ▶ K-Kron II exterior paint finish

NOTE: All measurements are nominal.

Other Options (custom options are also available)

- ▶ French inswing casements
- ▶ Other wood species and FSC-certified wood (pg. 182)
- ▶ Interior prefinishing (pg. 182)
- ▶ Interior casing
- ▶ Prep for stool
- ▶ Exterior brickmould and casing (pg. 187)
- ▶ Projected sill nosing, extended sill horns or no sill nosing
- ▶ Ovolo and square profile glazing beads and interior divided lite bars (pgs. 185-186)
- ▶ Extension jambs (up to 7")
- ▶ Galvanized steel installation clips

Casements | Elevation Charts

Casements | Single Units

U.D.	1'-6 1/2"	1'-10 1/2"	2'-2 1/2"	2'-6 1/2"	2'-8 1/2"	2'-10 1/2"	3'-2 1/2"
R.O.	1'-4 1/2"	1'-8 1/2"	2'-0 1/2"	2'-4 1/2"	2'-6 1/2"	2'-8 1/2"	3'-0 1/2"
G.S.	11 1/4"	15 1/4"	19 1/4"	23 1/4"	25 1/4"	27 1/4"	31 1/4"
G.S.**	9 13/16"	13 13/16"	17 13/16"	21 13/16"	23 13/16"	25 13/16"	29 13/16"
2'-2"							
2'-8"							
3'-2"							
3'-8"							
4'-2"							
4'-8"							
5'-2"							
5'-8"							
6'-2"							

* Units meet most national emergency escape and rescue requirements

** Glass size for push-out casements

† Push-out units are only available with single-point hardware

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size

Dimension Calculations

Elevation charts provide wood unit dimensions for units with the standard 1-15/16" brickmould. Below are the calculations to determine the frame size of units with brickmould.

	Width	Height
1-15/16" brickmould; U.D. to F.S.	-2 1/2"	-2"
3-1/2" flat or profiled casing; U.D. to F.S.	-5 5/8"	-3 9/16"
3-1/2" casing and backband; U.D. to F.S.	-7 1/8"	-4 5/16"

F.S. to Sash O.S.M.	-1 15/16"	1 15/16"
Sash O.S.M. to G.S.	-2 13/16"	2 13/16"
G.S. to D.L.O.	-1"	-1"
G.S. to Screen O.S.M.	+1 9/16"	+1/2"
U.D. to G.S. (for push-outs)	-8 11/16"	-8 3/16"

Note: Clear opening dimensions can be found on pgs. 194-196.

F.S. = Frame Size • G.S. = Glass Size • O.S.M. = Outside Measurement
D.L.O. = Daylight Opening • U.D. = Unit Dimension














































NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | “S” Series (1' - 4" Wide)

U.D.	1'-6 1/2"	2'-10 1/2"	4'-2 1/2"	5'-6 1/2"	6'-10 1/2"
R.O.	1'-4 1/2"	2'-8 1/2"	4'-0 1/2"	5'-4 1/2"	6'-8 1/2"
G.S.	11 1/4"	11 1/4"	11 1/4"	11 1/4"	11 1/4"
G.S.**	9 13/16"	9 13/16"	9 13/16"	9 13/16"	9 13/16"
2'-2"					
2'-8"					
3'-2"					
3'-8"					
4'-2"					
4'-8"					
5'-2"					
5'-8"					
6'-2"					

** Glass size for push-out casements

† Push-out units are only available with single-point hardware

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.





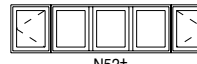

















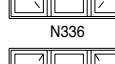
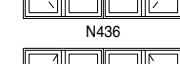
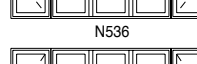









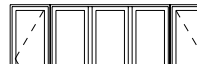


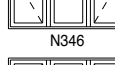
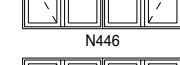
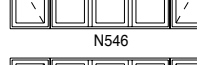


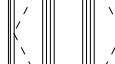


Divided lites are optional. The divided lite configurations shown for single sash are typical for each sash of mulled units.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | Elevation Charts

Casements | "N" Series (1' - 8" Wide)

U.D.	1'-10 1/2"	3'-6 1/2"	5'-2 1/2"	6'-10 1/2"	8'-6 1/2"
R.O.	1'-8 1/2"	3'-4 1/2"	5'-0 1/2"	6'-8 1/2"	8'-4 1/2"
G.S.	15 1/4"	15 1/4"	15 1/4"	15 1/4"	15 1/4"
G.S.**	13 13/16"	13 13/16"	13 13/16"	13 13/16"	13 13/16"
2'-2"					
2'-0 1/2"					
2'-6 1/2"					
2'-6 1/2"					
3'-2"					
3'-0 1/2"					
3'-8"					
3'-6 1/2"					
4'-2"					
4'-0 1/2"					
4'-8"					
4'-6 1/2"					
5'-2"					
5'-0 1/2"					
5'-8"					
5'-6 1/2"					
6'-2"					
6'-0 1/2"					

** Glass size for push-out casements

† Push-out units are only available with single-point hardware

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)



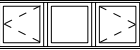
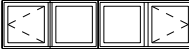
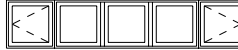























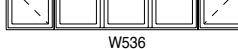



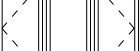





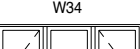















NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional. The divided lite configurations shown for single sash are typical for each sash of mulled units.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | "W" Series (2' - 0" Wide)

U.D.	2'-2 1/2"	4'-2 1/2"	6'-2 1/2"	8'-2 1/2"	10'-2 1/2"	12'-2 1/2"
R.O.	2'-0 1/2"	4'-0 1/2"	6'-0 1/2"	8'-0 1/2"	10'-0 1/2"	12'-0 1/2"
G.S.	19 1/4"	19 1/4"	19 1/4"	19 1/4"	19 1/4"	19 1/4"
G.S.**	17 13/16"	17 13/16"	17 13/16"	17 13/16"	17 13/16"	17 13/16"
2'-2"						
2'-8"						
3'-2"						
3'-8"						
4'-2"						
4'-8"						
5'-2"						
5'-8"						
6'-2"						

** Glass size for push-out casements

† Push-out units are only available with single-point hardware

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional. The divided lite configurations shown for single sash are typical for each sash of mullied units.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | Elevation Charts

Casements | "L" Series (2'- 4" wide)

U.D.	2'-6 1/2"	4'-10 1/2"	7'-2 1/2"	9'-6 1/2"	11'-10 1/2"	14'-2 1/2"
R.O.	2'-4 1/2"	4'-8 1/2"	7'-0 1/2"	9'-4 1/2"	11'-8 1/2"	14'-0 1/2"
G.S.	23 1/4"	23 1/4"	23 1/4"	23 1/4"	23 1/4"	23 1/4"
G.S.**	21 13/16"	21 13/16"	21 13/16"	21 13/16"	21 13/16"	21 13/16"
2'-2"						
2'-8"						
3'-2"						
3'-8"						
4'-2"						
4'-8"						
5'-2"						
5'-8"						
6'-2"						

* Units meet most national emergency escape and rescue requirements when modified with single-arm operators and Euro hinges.

** Glass size for push-out casements

† Push-out units are only available with single-point hardware

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)














































NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional. The divided lite configurations shown for single sash are typical for each sash of mulled units.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | "X" Series (2' - 6" wide)

U.D.	2'-8 1/2"	5'-2 1/2"	7'-8 1/2"	10'-2 1/2"	12'-8 1/2"
R.O.	2'-6 1/2"	5'-0 1/2"	7'-6 1/2"	10'-0 1/2"	12'-6 1/2"
G.S.	25 1/4"	25 1/4"	25 1/4"	25 1/4"	25 1/4"
G.S.**	23 13/16"	23 13/16"	23 13/16"	23 13/16"	23 13/16"
2'-2"	 X12†	 X22†	 X32†	 X42†	 X52†
2'-8"	 X126†	 X226†	 X326†	 X426†	 X526†
3'-2"	 X13	 X23	 X33	 X43	 X53
3'-8"	 X136	 X236	 X336	 X436	 X536
4'-2"	 X14*	 X24*	 X34*	 X44*	 X54*
4'-8"	 X146*	 X246*	 X346*	 X446*	 X546*
5'-2"	 X15*	 X25*	 X35*	 X45*	 X55*
5'-8"	 X156*	 X256*	 X356*	 X456*	 X556*
6'-2"	 X16*	 X26*	 X36*	 X46*	 X56*

* Units meet most national emergency escape and rescue requirements.

** Glass size for push-outs

† Push-out units are only available with single-point hardware

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.


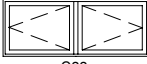
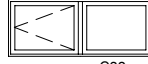
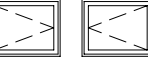
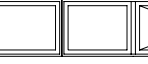



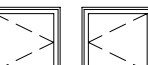








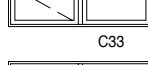

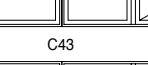



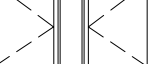
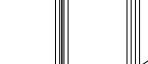











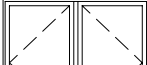
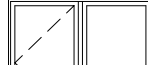
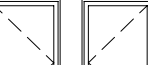



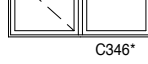


Divided lites are optional. The divided lite configurations shown for single sash are typical for each sash of mullied units.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | Elevation Charts

Casements | "C" Series (2' - 8" Wide)

U.D.	2'10 1/2"	5'6 1/2"	8'2 1/2"	10'10 1/2"	13'6 1/2"
R.O.	2'8 1/2"	5'4 1/2"	8'0 1/2"	10'8 1/2"	13'4 1/2"
G.S.	27 1/4"	27 1/4"	27 1/4"	27 1/4"	27 1/4"
G.S.**	25 13/16"	25 13/16"	25 13/16"	25 13/16"	25 13/16"
2'2"					
2'8"					
3'2"					
3'8"					
4'2"					
4'8"					
5'2"					
5'8"					
6'2"					

* Units meet most national emergency escape and rescue requirements.

** Glass size for push-out casements

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)


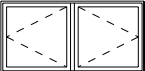


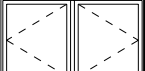


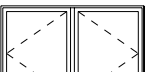
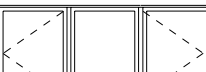

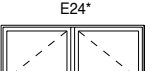





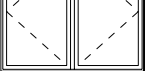


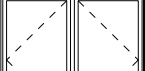

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional. The divided lite configurations shown for single sash are typical for each sash of mulled units.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | “E” Series (3'- 0" Wide)

U.D.	3'-2 1/2"	6'-2 1/2"	9'-2 1/2"
R.O.	3'-0 1/2"	6'-0 1/2"	9'-0 1/2"
G.S.	31 1/4"	31 1/4"	31 1/4"
G.S.**	29 13/16"	29 13/16"	29 13/16"
3'-2"			
	E13	E23	E33
3'-8"			
	E136*	E236*	E336*
4'-2"			
	E14*	E24*	E34*
4'-8"			
	E146*	E246*	E346*
5'-2"			
	E15*	E25*	E35*
5'-8"			
	E156*	E256*	E356*
6'-2"			
	E16*	E26*	E36*

* Units meet most national emergency escape and rescue requirements.

** Glass size for push-out casements

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.















































































Divided lites are optional. The divided lite configurations shown for single sash are typical for each sash of mulled units.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | Elevation Charts

Casements | Rectangular Transoms & Picture Units

U.D.	1'-6 1/2"	1'-10 1/2"	2'-2 1/2"	2'-8 1/2"	2'-10 1/2"	3'-2 1/2"	3'-6 1/2"	4'-2 1/2"	4'-8 1/2"	5'-2 1/2"	6'-2 1/2"
R.O.	1'-4 1/2"	1'-8 1/2"	2'-0 1/2"	2'-6 1/2"	2'-8 1/2"	3'-0 1/2"	3'-4 1/2"	4'-0 1/2"	4'-6 1/2"	5'-0 1/2"	6'-0 1/2"
G.S.	11 1/4"	15 1/4"	19 1/4"	25 1/4"	27 1/4"	31 1/4"	35 1/4"	43 1/4"	49 1/4"	55 1/4"	67 1/4"
G.S.*	9 13/16"	13 13/16"	17 13/16"	23 13/16"	25 13/16"	29 13/16"	33 13/16"	41 13/16"	47 13/16"	53 13/16"	65 13/16"
1'-6"											
1'-8"											
1'-10"											
2'-2"											
2'-4"											
2'-6"											
2'-8"											
3'-2"											
3'-4"											
3'-6"											
3'-8"											
4'-2"											
4'-4"											
4'-6"											
4'-8"											
4'-10"											
5'-2"											
5'-4"											
5'-6"											
5'-8"											
5'-10"											
5'-12"											
6'-2"											

** Glass size for units to match operating push-out casements
 U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

The units shown are stand-alone units. Adjustments may be required when stacking over other units; adjustments will be made in the factory.

Divided lites are optional.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

French Casements

U.D.	3'-6 1/2"	4'-2 1/2"	5'-2 1/2"
R.O.	3'-4 1/2"	4'-0 1/2"	5'-0 1/2"
G.S.	16 1/8"	20 1/8"	26 1/8"
G.S.**	14 11/16"	18 11/16"	24 11/16"
3'-2"			
3'-0 1/2"			
3'-8"			
3'-6 1/2"			
3'-1 1/8"			
35 13/16"			
4'-2"			
4'-0 1/2"			
4'-8"			
4'-6 1/2"			
4'-1 1/8"			
47 13/16"			
5'-2"			
5'-0 1/2"			
5'-8"			
5'-6 1/2"			
5'-1 1/8"			
59 13/16"			
6'-2"			
6'-0 1/2"			
6'-1 1/8"			
65 13/16"			

* Units meet most national emergency escape and rescue requirements.

** Glass size for push-out casements

U.D. = Unit Dimension • R.O. = Rough Opening
G.S. = Glass Size (Glass sizes are shown per sash)

Single Unit

U.D.	2'-2 3/4"
R.O.	2-1"
G.S.	19 13/16"
3'-1 3/4"	
3'-1 1/2"	
29 1/8"	
3'-7 3/4"	
3'-6 1/2"	
35 1/8"	
4'-1 3/4"	
4'-1 1/2"	
41 1/8"	
4'-7 3/4"	
4'-6 1/2"	
47 1/8"	
5'-1 3/4"	
5'-1 1/2"	
53 1/8"	
5'-7 3/4"	
5'-6 1/2"	
59 1/8"	
6'-1 3/4"	
6'-0 1/2"	
65 1/8"	

Inswing Casements

Two-Wide French

U.D.	3'-6 1/4"	4'-2 1/4"	5'-2 1/4"
R.O.	3'-4 1/2"	4'-0 1/2"	5'-0 1/2"
G.S.	15 13/16"	19 13/16"	25 13/16"
3'-1 3/4"			
3'-1 1/2"			
29 1/8"			
3'-7 3/4"			
3'-6 1/2"			
35 1/8"			
4'-1 3/4"			
4'-1 1/2"			
41 1/8"			
4'-7 3/4"			
4'-6 1/2"			
47 1/8"			
5'-1 3/4"			
5'-1 1/2"			
53 1/8"			
5'-7 3/4"			
5'-6 1/2"			
59 1/8"			
6'-1 3/4"			
6'-0 1/2"			
65 1/8"			

NOTE: All measurements are nominal. Elevation charts are not to scale.

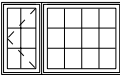
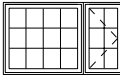
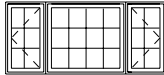
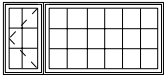
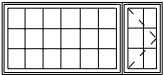
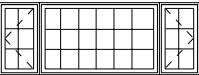












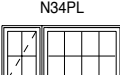


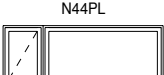
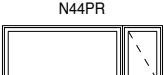
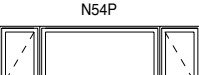
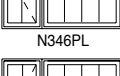
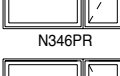
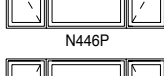
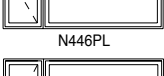
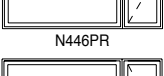
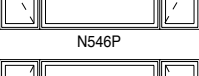












Divided lites are optional.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | Elevation Charts

Casements | "N" Series Picture Unit Combinations

U.D.	5'-2 1/2"	5'-2 1/2"	6'-10 1/2"	6'-10 1/2"	6'-10 1/2"	8'-6 1/2"
R.O.	5'-0 1/2"	5'-0 1/2"	6'-8 1/2"	6'-8 1/2"	6'-8 1/2"	8'-4 1/2"
G.S.	15 1/4" 35 1/4"	35 1/4" 15 1/4"	15 1/4" 35 1/4" 15 1/4"	15 1/4" 55 1/4"	55 1/4" 15 1/4"	15 1/4" 55 1/4" 15 1/4"
G.S.**	13 13/16" 33 13/16"	33 13/16" 13 13/16"	13 13/16" 33 13/16" 13 13/16"	13 13/16" 53 13/16"	53 13/16" 13 13/16"	13 13/16" 53 13/16" 13 13/16"
3'-2"	 N33PL	 N33PR	 N43P	 N43PL	 N43PR	 N53P
3'-8"	 N336PL	 N336PR	 N436P	 N436PL	 N436PR	 N536P
4'-2"	 N34PL	 N34PR	 N44P	 N44PL	 N44PR	 N54P
4'-8"	 N346PL	 N346PR	 N446P	 N446PL	 N446PR	 N546P
5'-2"	 N35PL	 N35PR	 N45P	 N45PL	 N45PR	 N55P
5'-8"	 N356PL	 N356PR	 N456P	 N456PL	 N456PR	 N556P
6'-2"	 N36PL	 N36PR	 N46P	 N46PL	 N46PR	 N56P

** Glass size for push-out casements.

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

Venting is viewed from the exterior.

Divided lites are optional.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | “W” Series Picture Unit Combinations

U.D.	6'-2 1/2"	6'-2 1/2"	8'-2 1/2"	8'-2 1/2"	8'-2 1/2"	10'-2 1/2"
R.O.	6'-0 1/2"	6'-0 1/2"	8'-0 1/2"	8'-0 1/2"	8'-0 1/2"	10'-0 1/2"
G.S.	19 1/4" 43 1/4"	43 1/4" 19 1/4"	19 1/4" 43 1/4" 19 1/4"	19 1/4" 67 1/4"	67 1/4" 19 1/4"	19 1/4" 67 1/4" 19 1/4"
G.S.**	17 13/16" 41 13/16"	41 13/16" 17 13/16"	17 13/16" 41 13/16" 17 13/16"	17 13/16" 65 13/16"	65 13/16" 17 13/16"	17 13/16" 65 13/16" 17 13/16"
3'-2"						
3'-8"						
4'-2"						
4'-8"						
5'-2"						
5'-8"						
6'-2"						

** Glass size for push-out casements.

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

Venting is viewed from the exterior.






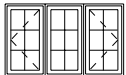
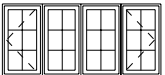
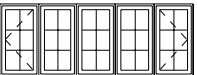
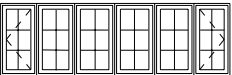
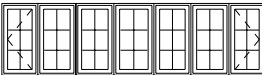
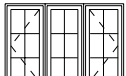
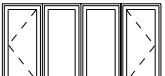

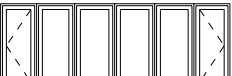

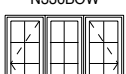
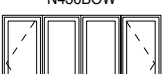




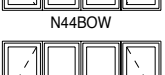








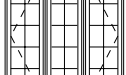

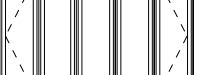
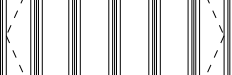
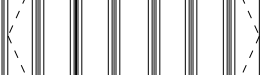
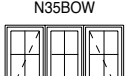
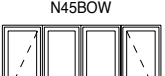
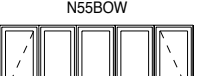
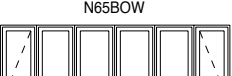
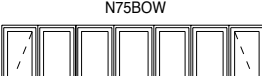
Divided lites are optional.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | Elevation Charts

Casements | "N" Series Bow Windows

UNIT PROJECTION:		5"	8 9/16"	12 1/16"	17 1/4"	22 5/16"
						
U.D.		5'-2 3/8"	6'-9 1/2"	8'-4 1/16"	9'-9 15/16"	11'-3 1/16"
R.O.		4'-11 13/16"	6'-6 3/4"	8'-1 1/8"	9'-6 11/16"	10'-11 1/4"
G.S.		15 1/4"	15 1/4"	15 1/4"	15 1/4"	15 1/4"
3'-2"	3'-0 1/2"					
3'-8"	3'-6 1/2"					
4'-2"	4'-0 1/2"					
4'-8"	4'-6 1/2"					
5'-2"	5'-0 1/2"					
5'-8"	5'-6 1/2"					
6'-2"	6'-0 1/2"					

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.






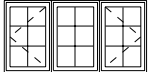
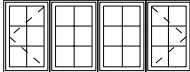
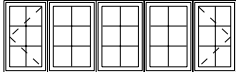
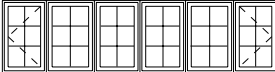
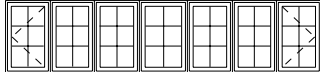





























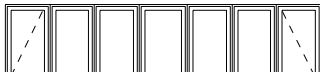
Divided lites are optional.

If the cable support system and/or insulated platforms and support brackets are not being used, other means of proper support must be used. Add 1-11/16" to the R.O. height if an insulated platform is being used. R.O.'s for bow units without head and seat boards, typically used for walk-out applications, are different.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | “W” Series Bow Windows

UNIT PROJECTION:		5 11/16"	9 15/16"	14 1/8"	20 5/16"	26 3/8"
						
U.D.	R.O.	6'-2 1/4"	8'-1 3/16"	9'-11 7/16"	11'-8 7/8"	13'-5 7/16"
G.S.		5'-11 11/16"	7'-10 1/2"	9'-8 1/2"	11'-5 5/8"	13'-1 9/16"
		19 1/4"	19 1/4"	19 1/4"	19 1/4"	19 1/4"
3'-2"	3'-0 1/2"					
3'-8"	3'-6 1/4"					
4'-2"	4'-0 1/4"					
4'-8"	4'-6 1/2"					
5'-2"	5'-0 1/2"					
5'-8"	5'-6 1/4"					
6'-2"	6'-0 1/2"					

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional.

If the cable support system and/or insulated platforms and support brackets are not being used, other means of proper support must be used. Add 1-11/16" to the R.O. height if an insulated platform is being used. R.O.'s for bow units without head and seat boards, typically used for walk-out applications, are different.





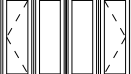






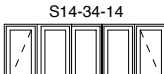

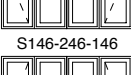
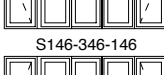




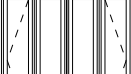
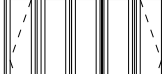
Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | Elevation Charts

Casements | "S" Series 30° Bay Windows

UNIT PROJECTION: 10 7/16"

	U.D.	4'-2 11/16"	5'-6 11/16"	6'-10 11/16"
	R.O.	3'-10 7/8"	5'-2 7/8"	6'-6 7/8"
	G.S.	11 1/4"	11 1/4"	11 1/4"
3'-2"	3'-0 1/2"			
		S13-13-13	S13-23-13	S13-33-13
3'-8"	3'-6 1/2"			
		S136-136-136	S136-236-136	S136-336-136
4'-2"	4'-0 1/2"			
		S14-14-14	S14-24-14	S14-34-14
4'-8"	4'-6 1/2"			
		S146-146-146	S146-246-146	S146-346-146
5'-2"	5'-0 1/2"			
		S15-15-15	S15-25-15	S15-35-15
5'-8"	5'-6 1/2"			
		S156-156-156	S156-256-156	S156-356-156
6'-2"	6'-0 1/2"			
		S16-16-16	S16-26-16	S16-36-16

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size
(Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional.

If the cable support system and/or insulated platforms & support brackets are not being used, other means of proper support must be used. Add 1-11/16" to the R.O. height if an insulated platform is being used. R.O.'s for bay units without head and seat boards, typically used for walk-out applications, are different.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | “N” Series 30° Bay Windows

UNIT PROJECTION: 12 7/16"

U.D.	5'-1 5/8"	6'-9 5/8"	6'-9 5/8"	8'-5 5/8"	8'-5 5/8"
R.O.	4'-9 3/4"	6'-5 3/4"	6'-5 3/4"	8'-1 3/4"	8'-1 3/4"
G.S.	15 1/4"	15 1/4"	15 1/4" 35 1/4" 15 1/4"	15 1/4"	15 1/4" 55 1/4" 15 1/4"
3'-2"					
3'-0 1/2"	N13-13-13	N13-23-13	N13-23P-13	N13-33-13	N13-33P-13
3'-8"					
3'-6 1/2"	N136-136-136	N136-236-136	N136-236P-136	N136-336-136	N136-336P-136
4'-2"					
4'-0 1/2"	N14-14-14	N14-24-14	N14-24P-14	N14-34-14	N14-34P-14
4'-8"					
4'-6 1/2"	N146-146-146	N146-246-146	N146-246P-146	N146-346-146	N146-346P-146
5'-2"					
5'-0 1/2"	N15-15-15	N15-25-15	N15-25P-15	N15-35-15	N15-35P-15
5'-8"					
5'-6 1/2"	N156-156-156	N156-256-156	N156-256P-156	N156-356-156	N156-356P-156
6'-2"					
6'-0 1/2"	N16-16-16	N16-26-16	N16-26P-16	N16-36-16	N16-36P-16

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

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Additional and the most current drawings are available at www.kolbewindows.com.

Casements | Elevation Charts

Casements | "W" Series 30° Bay Windows

UNIT PROJECTION: 14 7/16"

	6'-0 9/16"	8'-0 9/16"	8'-0 9/16"	10'-0 9/16"	10'-0 9/16"
U.D.	6'-0 9/16"	8'-0 9/16"	8'-0 9/16"	10'-0 9/16"	10'-0 9/16"
R.O.	5'-8 11/16"	7'-8 11/16"	7'-8 11/16"	9'-8 11/16"	9'-8 11/16"
G.S.	19 1/4"	19 1/4"	19 1/4" 43 1/4" 19 1/4"	19 1/4"	19 1/4" 67 1/4" 19 1/4"
3'-2"					
3'-0 1/2"	W13-13-13	W13-23-13	W13-23P-13	W13-33-13	W13-33P-13
3'-8"					
3'-6 1/2"	W136-136-136	W136-236-136	W136-236P-136	W136-336-136	W136-336P-136
4'-2"					
4'-0 1/2"	W14-14-14	W14-24-14	W14-24P-14	W14-34-14	W14-34P-14
4'-8"					
4'-6 1/2"	W146-146-146	W146-246-146	W146-246P-146	W146-346-146	W146-346P-146
5'-2"					
5'-0 1/2"	W15-15-15	W15-25-15	W15-25P-15	W15-35-15	W15-35P-15
5'-8"					
5'-6 1/2"	W156-156-156	W156-256-156	W156-256P-156	W156-356-156	W156-356P-156
6'-2"					
6'-0 1/2"	W16-16-16	W16-26-16	W16-26P-16	W16-36-16	W16-36P-16

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional.

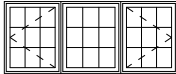
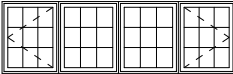
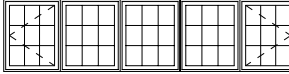
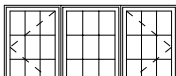
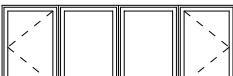




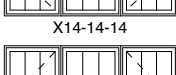
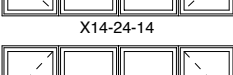
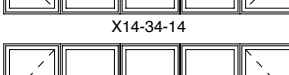

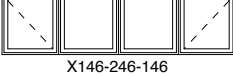
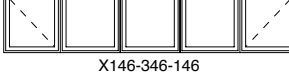
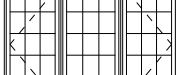
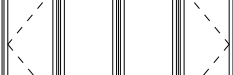
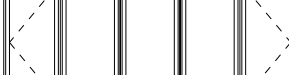
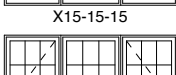
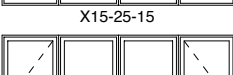

If the cable support system and/or insulated platforms and support brackets are not being used, other means of proper support must be used. Add 1-11/16" to the R.O. height if an insulated platform is being used. R.O.'s for bay units without head and seat boards, typically used for walk-out applications, are different.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | “X” Series 30° Bay Windows

UNIT PROJECTION: 17 7/16"

	7'-4 5/8"	9'-10 5/8"	12'-4 5/8"
U.D.			
R.O.	7'-1 1/8"	9'-7 1/8"	12'-1 1/8"
G.S.	25 1/4"	25 1/4"	25 1/4"
3'-2"			
3'-0 1/2"	X13-13-13	X13-23-13	X13-33-13
3'-9"			
3'-6 1/2"	X136-136-136	X136-236-136	X136-336-136
4'-2"			
4'-0 1/2"	X14-14-14	X14-24-14	X14-34-14
4'-8"			
4'-6 1/2"	X146-146-146	X146-246-146	X146-346-146
5'-2"			
5'-0 1/2"	X15-15-15	X15-25-15	X15-35-15
5'-8"			
5'-6 1/2"	X156-156-156	X156-256-156	X156-356-156
6'-2"			
6'-0 1/2"	X16-16-16	X16-26-16	X16-36-16

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional.

If the cable support system and/or insulated platforms and support brackets are not being used, other means of proper support must be used. Add 1-11/16" to the R.O. height if an insulated platform is being used. R.O.'s for bay units without head and seat boards, typically used for walk-out applications, are different.

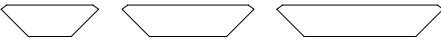
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




















Additional and the most current drawings are available at www.kolbewindows.com.

Casements | Elevation Charts

Casements | “S” Series 45° Bay Windows

UNIT PROJECTION: 14 5/8"



	U.D.	3'-10 15/16"	5'-2 15/16"	6'-6 15/16"
	R.O.	3'-5 15/16"	4'-9 15/16"	6'-1 15/16"
	G.S.	11 1/4"	11 1/4"	11 1/4"
3'-2"	3'-0 1/2"	31 1/4"		
				
		S13-13-13	S13-23-13	S13-33-13
3'-8"	3'-6 1/2"	37 1/4"		
				
		S136-136-136	S136-236-136	S136-336-136
4'-2"	4'-0 1/2"	43 1/4"		
				
		S14-14-14	S14-24-14	S14-34-14
4'-8"	4'-6 1/2"	49 1/4"		
				
		S146-146-146	S146-246-146	S146-346-146
5'-2"	5'-0 1/2"	55 1/4"		
				
		S15-15-15	S15-25-15	S15-35-15
5'-8"	5'-6 1/2"	61 1/4"		
				
		S156-156-156	S156-256-156	S156-356-156
6'-2"	6'-0 1/2"	67 1/4"		
				
		S16-16-16	S16-26-16	S16-36-16

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size
(Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional.

If the cable support system and/or insulated platforms and support brackets are not being used, other means of proper support must be used. Add 1-11/16" to the R.O. height if an insulated platform is being used. R.O.'s for bay units without head and seat boards, typically used for walk-out applications, are different.

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Additional and the most current drawings are available at www.kolbewindows.com.

Casements | “N” Series 45° Bay Windows

UNIT PROJECTION: 17 1/2"

U.D.	4'-8 9/16"	6'-4 9/16"	6'-4 9/16"	8'-0 9/16"	8'-0 9/16"
R.O.	4'-3 5/8"	5'-11 5/8"	5'-11 5/8"	7'-7 5/8"	7'-7 5/8"
G.S.	15 1/4"	15 1/4"	15 1/4" 35 1/4" 15 1/4"	15 1/4"	15 1/4" 55 1/4" 15 1/4"
3'-2"					
3'-0 1/2"	N13-13-13	N13-23-13	N13-23P-13	N13-33-13	N13-33P-13
3'-8"					
3'-6 1/2"	N136-136-136	N136-236-136	N136-236P-136	N136-336-136	N136-336P-136
4'-2"					
4'-0 1/2"	N14-14-14	N14-24-14	N14-24P-14	N14-34-14	N14-34P-14
4'-8"					
4'-6 1/2"	N146-146-146	N146-246-146	N146-246P-146	N146-346-146	N146-346P-146
5'-2"					
5'-0 1/2"	N15-15-15	N15-25-15	N15-25P-15	N15-35-15	N15-35P-15
5'-8"					
5'-6 1/2"	N156-156-156	N156-256-156	N156-256P-156	N156-356-156	N156-356P-156
6'-2"					
6'-0 1/2"	N16-16-16	N16-26-16	N16-26P-16	N16-36-16	N16-36P-16

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional. Follow chart down from top row and across from left column to determine divided lites configurations.

If the cable support system and/or insulated platforms and support brackets are not being used, other means of proper support must be used. Add 1-11/16" to the R.O. height if an insulated platform is being used. R.O.'s for bay units without head and seat boards, typically used for walk-out applications, are different.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | Elevation Charts

Casements | "W" Series 45° Bay Windows

UNIT PROJECTION: 20 5/16"

	5'-6 1/4"	7'-6 1/4"	7'-6 1/4"	9'-6 1/4"	9'-6 1/4"
U.D.	5'-6 1/4"	7'-6 1/4"	7'-6 1/4"	9'-6 1/4"	9'-6 1/4"
R.O.	5'-1 1/4"	7'-1 1/4"	7'-1 1/4"	9'-1 1/4"	9'-1 1/4"
G.S.	19 1/4"	19 1/4"	19 1/4" 43 1/4" 19 1/4"	19 1/4"	19 1/4" 67 1/4" 19 1/4"
3'-2"					
3'-0 1/2"	W13-13-13	W13-23-13	W13-23P-13	W13-33-13	W13-33P-13
3'-8"					
3'-6 1/2"	W136-136-136	W136-236-136	W136-236P-136	W136-336-136	W136-336P-136
4'-2"					
4'-0 1/2"	W14-14-14	W14-24-14	W14-24P-14	W14-34-14	W14-34P-14
4'-8"					
4'-6 1/2"	W146-146-146	W146-246-146	W146-246P-146	W146-346-146	W146-346P-146
5'-2"					
5'-0 1/2"	W15-15-15	W15-25-15	W15-25P-15	W15-35-15	W15-35P-15
5'-8"					
5'-6 1/2"	W156-156-156	W156-256-156	W156-256P-156	W156-356-156	W156-356P-156
6'-2"					
6'-0 1/2"	W16-16-16	W16-26-16	W16-26P-16	W16-36-16	W16-36P-16

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional.

If the cable support system and/or insulated platforms and support brackets are not being used, other means of proper support must be used. Add 1-11/16" to the R.O. height if an insulated platform is being used. R.O.'s for bay units without head and seat boards, typically used for walk-out applications, are different.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | “X” Series 45° Bay Windows

UNIT PROJECTION: 24 9/16"

	U.D.	6'-8 11/16"	9'-2 11/16"	11'-8 11/16"
	R.O.	6'-3 3/4"	8'-9 3/4"	11'-3 3/4"
	G.S.	25 1/4"	25 1/4"	25 1/4"
3'-2"	3'-0 1/2"			
	31 1/4"	X13-13-13	X13-23-13	X13-33-13
3'-8"	3'-6 1/2"			
	37 1/4"	X136-136-136	X136-236-136	X136-336-136
4'-2"	4'-0 1/2"			
	43 1/4"	X14-14-14	X14-24-14	X14-34-14
4'-8"	4'-6 1/2"			
	49 1/4"	X146-146-146	X146-246-146	X146-346-146
5'-2"	5'-0 1/2"			
	55 1/4"	X15-15-15	X15-25-15	X15-35-15
5'-8"	5'-6 1/2"			
	61 1/4"	X156-156-156	X156-256-156	X156-356-156
6'-2"	6'-0 1/2"			
	67 1/4"	X16-16-16	X16-26-16	X16-36-16

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional.

If the cable support system and/or insulated platforms and support brackets are not being used, other means of proper support must be used. Add 1-11/16" to the R.O. height if an insulated platform is being used. R.O.'s for bay units without head and seat boards, typically used for walk-out applications, are different.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | Elevation Charts

Casements | 90° Bay Windows

UNIT PROJECTION: 23 1/2"

U.D.	4'-9 1/2"	4'-9 1/2"	6'-9 1/2"	6'-9 1/2"
R.O.	4'-0 1/2"	4'-0 1/2"	6'-0 1/2"	6'-0 1/2"
G.S.	19 1/4"	43 1/4"	19 1/4"	67 1/4"
3'-2"				
3'-0 1/2"	S13-W23-S13	S13-W23P-S13	S13-W33-S13	S13-W33P-S13
3'-8"				
3'-6 1/2"	S136-W236-S136	S136-W236P-S136	S136-W336-S136	S136-W336P-S136
4'-2"				
4'-0 1/2"	S14-W24-S14	S14-W24P-S14	S14-W34-S14	S14-W34P-S14
4'-8"				
4'-6 1/2"	S146-W246-S146	S146-W246P-S146	S146-W346-S146	S146-W346P-S146
5'-2"				
5'-0 1/2"	S15-W25-S15	S15-W25P-S15	S15-W35-S15	S15-W35P-S15
5'-8"				
5'-6 1/2"	S156-W256-S156	S156-W256P-S156	S156-W356-S156	S156-W356P-S156
6'-2"				
6'-0 1/2"	S16-W26-S16	S16-W26P-S16	S16-W36-S16	S16-W36P-S16

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size
(Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Only flanker sash vent on 90° bay windows.
























































Divided lites are optional. Sizes and divided lite configurations for flanker sash can be found on the Casements - "S" Series chart on pg. 17.

If the cable support system and/or insulated platforms and support brackets are not being used, other means of proper support must be used. Add 1-11/16" to the R.O. height if an insulated platform is being used. R.O.'s for bay units without head and seat boards, typically used for walk-out applications, are different.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Segment Head Casements | Single Units

U.D.	1'-6 1/2"	1'-10 1/2"	2'-2 1/2"	2'-6 1/2"	2'-8 1/2"	2'-10 1/2"	3'-2 1/2"
R.O.	1'-4 1/2"	1'-8 1/2"	2'-0 1/2"	2'-4 1/2"	2'-6 1/2"	2'-8 1/2"	3'-0 1/2"
G.S.*	11 1/4"	15 1/4"	19 1/4"	23 1/4"	25 1/4"	27 1/4"	31 1/4"
G.S.**	9 13/16"	13 13/16"	17 13/16"	21 13/16"	23 13/16"	25 13/16"	29 13/16"
2'-8"							
3'-2"							
3'-8"							
4'-2"							
4'-8"							
5'-2"							
5'-8"							
6'-2"							
	S126-SEG†	N126-SEG†	W126-SEG†	L126-SEG†	X126-SEG†	C126-SEG†	
	S13-SEG	N13-SEG	W13-SEG	L13-SEG	X13-SEG	C13-SEG	E13-SEG
	S136-SEG	N136-SEG	W136-SEG	L136-SEG	X136-SEG	C136-SEG	E136-SEG***
	S14-SEG	N14-SEG	W14-SEG	L14-SEG	X14-SEG***	C14-SEG***	E14-SEG***
	S146-SEG	N146-SEG	W146-SEG	L146-SEG	X146-SEG***	C146-SEG***	E146-SEG***
	S15-SEG	N15-SEG	W15-SEG	L15-SEG	X15-SEG***	C15-SEG***	E15-SEG***
	S156-SEG	N156-SEG	W156-SEG	L156-SEG	X156-SEG***	C156-SEG***	E156-SEG***
	S16-SEG	N16-SEG	W16-SEG	L16-SEG	X16-SEG***	C16-SEG***	E16-SEG***

* Approximate glass sizes are given; true glass sizes vary depending on the radius involved.

** Glass size for push-out casements.

*** Units meet most national emergency escape and rescue requirements.

† Push-out units are only available with single-point hardware.

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

























Divided lites are optional.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

























Additional and the most current drawings are available at www.kolbewindows.com.

Casements | Elevation Charts

Segment Head Casements
"S" Series

U.D.	1'-6 1/2"	2'-10 1/2"	4'-2 1/2"
R.O.	1'-4 1/2"	2'-8 1/2"	4'-0 1/2"
G.S.*	11 1/4"	11 1/4"	11 1/4"
G.S.**	9 13/16"	9 13/16"	9 13/16"
2'-8"			
3'-2"			
3'-6 1/2"			
4'-2"			
4'-6 1/2"			
5'-2"			
5'-6 1/2"			
6'-2"			

Segment Head Casements
"N" Series

U.D.	1'-10 1/2"	3'-6 1/2"	5'-2 1/2"
R.O.	1'-8 1/2"	3'-4 1/2"	5'-0 1/2"
G.S.*	15 1/4"	15 1/4"	15 1/4"
G.S.**	13 13/16"	13 13/16"	13 13/16"
2'-8"			
3'-2"			
3'-6 1/2"			
4'-2"			
4'-6 1/2"			
5'-2"			
5'-6 1/2"			
6'-2"			

* Approximate glass sizes per sash are given; true glass sizes vary depending on the radius involved.

** Glass size for push-out casements.

† Push-out units are only available with single-point hardware.

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)

























NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional. The divided lite configurations shown for single sash are typical for each sash of mulled units.

























Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Segment Head Casements “W” Series

U.D.	2'-2 1/2"	4'-2 1/2"	6'-2 1/2"
R.O.	2'-0 1/2"	4'-0 1/2"	6'-0 1/2"
G.S.*	19 1/4"	19 1/4"	19 1/4"
G.S.**	17 13/16"	17 13/16"	17 13/16"
2'-8"			
3'-2"			
3'-6 1/2"			
4'-2"			
4'-6 1/2"			
5'-2"			
5'-6 1/2"			
6'-2"			

Segment Head Casements “L” Series

U.D.	2'-6 1/2"	4'-10 1/2"	7'-2 1/2"
R.O.	2'-4 1/2"	4'-8 1/2"	7'-0 1/2"
G.S.*	23 1/4"	23 1/4"	23 1/4"
G.S.**	21 13/16"	21 13/16"	21 13/16"
2'-8"			
3'-2"			
3'-6 1/2"			
4'-2"			
4'-6 1/2"			
5'-2"			
5'-6 1/2"			
6'-2"			

* Approximate glass sizes per sash are given; true glass sizes vary depending on the radius involved.

** Glass size for push-out casements.

† Push-out units are only available with single-point hardware.

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

























Divided lites are optional. The divided lite configurations shown for single sash are typical for each sash of mulled units.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

























Additional and the most current drawings are available at www.kolbewindows.com.

Casements | Elevation Charts

Segment Head Casements "X" Series

U.D.	2'-8 1/2"	5'-2 1/2"	7'-8 1/2"
R.O.	2'-6 1/2"	5'-0 1/2"	7'-6 1/2"
G.S.*	25 1/4"	25 1/4"	25 1/4"
G.S.**	23 13/16"	23 13/16"	23 13/16"
2'-8"			
3'-2"			
3'-6 1/2"			
4'-2"			
4'-6 1/2"			
5'-2"			
5'-6 1/2"			
6'-2"			

Segment Head Casements "C" Series

U.D.	2'-10 1/2"	5'-6 1/2"	8'-2 1/2"
R.O.	2'-8 1/2"	5'-4 1/2"	8'-0 1/2"
G.S.*	27 1/4"	27 1/4"	27 1/4"
G.S.**	25 13/16"	25 13/16"	25 13/16"
2'-8"			
3'-2"			
3'-6 1/2"			
4'-2"			
4'-6 1/2"			
5'-2"			
5'-6 1/2"			
6'-2"			

* Approximate glass sizes per sash are given; true glass sizes vary depending on the radius involved.

** Glass size for push-out casements.

*** Units meet most national emergency escape and rescue requirements.

† Push-out units are only available with single-point hardware.

§ Only available as stationary units.

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)


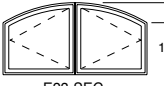


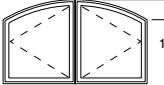
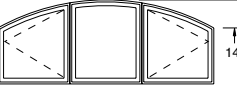

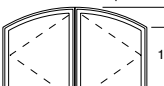
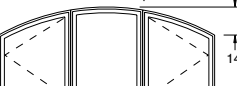

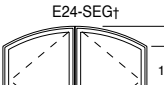
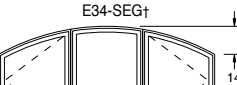




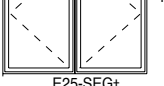




NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional. The divided lite configurations shown for single sash are typical for each sash of mulled units.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Segment Head Casements “E” Series

U.D.	3'-2 1/2"	6'-2 1/2"	9'-2 1/2"
R.O.	3'-0 1/2"	6'-0 1/2"	9'-0 1/2"
G.S.*	31 1/4"	31 1/4"	31 1/4"
G.S.**	29 13/16"	29 13/16"	29 13/16"
3'-2"			
3'-8"			
4'-2"			
4'-8"			
5'-2"			
5'-8"			
6'-2"			

* Approximate glass sizes per sash are given; true glass sizes vary depending on the radius involved.

** Glass size for push-out casements.

† Units meet most national emergency escape and rescue requirements.

§ Only available as stationary units.

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.








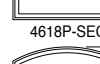









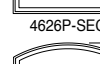




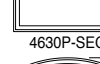














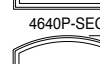














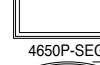


Divided lites are optional. The divided lite configurations shown for single sash are typical for each sash of mullied units.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Casements | Elevation Charts

Segment Head Casements | Picture Units

U.D.	3'-6 1/2"	4'-2 1/2"	4'-8 1/2"	5'-2 1/2"	6'-2 1/2"
R.O.	3'-4 1/2"	4'-0 1/2"	4'-6 1/2"	5'-0 1/2"	6'-0 1/2"
G.S.*	35 1/4"	43 1/4"	49 1/4"	55 1/4"	67 1/4"
G.S.**	33 13/16"	41 13/16"	47 13/16"	53 13/16"	65 13/16"
1'-6"	 N214P-SEG	 W214P-SEG	 4614P-SEG	 N314P-SEG	 W314P-SEG
1'-10"	 N218P-SEG	 W218P-SEG	 4618P-SEG	 N318P-SEG	 W318P-SEG
2'-2"	 N222P-SEG	 W222P-SEG	 4620P-SEG	 N322P-SEG	 W322P-SEG
2'-8"	 N226P-SEG	 W226P-SEG	 4626P-SEG	 N326P-SEG	 W326P-SEG
3'-2"	 N230P-SEG	 W230P-SEG	 4630P-SEG	 N330P-SEG	 W330P-SEG
3'-8"	 N236P-SEG	 W236P-SEG	 4636P-SEG	 N336P-SEG	 W336P-SEG
4'-2"	 N240P-SEG	 W240P-SEG	 4640P-SEG	 N340P-SEG	 W340P-SEG
4'-8"	 N246P-SEG	 W246P-SEG	 4646P-SEG	 N346P-SEG	 W346P-SEG
5'-2"	 N250P-SEG	 W250P-SEG	 4650P-SEG	 N350P-SEG	 W350P-SEG
5'-8"	 N256P-SEG	 W256P-SEG	 4656P-SEG	 N356P-SEG	 W356P-SEG
6'-2"	 N260P-SEG	 W260P-SEG	 4660P-SEG	 N360P-SEG	 W360P-SEG

* Approximate glass sizes are given; true glass sizes vary depending on the radius involved.

** Glass size for units to match operating push-out casements.

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional. Follow down from top row and across from left column to determine divided lite configurations.

Some installation procedures will require a larger rough opening than as noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Half-Circle Top Casements

U.D.	1'-6 1/2"	1'-10 1/2"	2'-2 1/2"	2'-6 1/2"	2'-8 1/2"	2'-10 1/2"	3'-2 1/2"
R.O.	1'-4 1/2"	1'-8 1/2"	2'-0 1/2"	2'-4 1/2"	2'-6 1/2"	2'-8 1/2"	3'-0 1/2"
G.S.*	11 1/4"	15 1/4"	19 1/4"	23 1/4"	25 1/4"	27 1/4"	31 1/4"
G.S.**	9 13/16"	13 13/16"	17 13/16"	21 13/16"	23 13/16"	25 13/16"	29 13/16"
2'-8"							
	S126-HC†	N126-HC†	W126-HC†	L126-HC†	X126-HC†	C126-HC†	E126-HC†
3'-2"							
	S13-HC	N13-HC	W13-HC	L13-HC	X13-HC	C13-HC	E13-HC
3'-8"							
	S136-HC	N136-HC	W136-HC	L136-HC	X136-HC	C136-HC	E136-HC
4'-2"							
	S14-HC	N14-HC	W14-HC	L14-HC	X14-HC***	C14-HC***	E14-HC***
4'-8"							
	S146-HC	N146-HC	W146-HC	L146-HC	X146-HC***	C146-HC***	E146-HC***
5'-2"							
	S15-HC	N15-HC	W15-HC	L15-HC	X15-HC***	C15-HC***	E15-HC***
5'-8"							
	S156-HC	N156-HC	W156-HC	L156-HC	X156-HC***	C156-HC***	E156-HC***
6'-2"							
	S16-HC	N16-HC	W16-HC	L16-HC	X16-HC***	C16-HC***	E16-HC***

* Approximate glass sizes are given; true glass sizes vary depending on the radius involved.

** Glass size for push-out casements.

*** Units meet most national emergency escape and rescue requirements when ordered as venting units.

† Push-out units are only available with single-point hardware.

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

Units are stationary as standard, however, some may be ordered as venting units. Contact your local dealer for details.

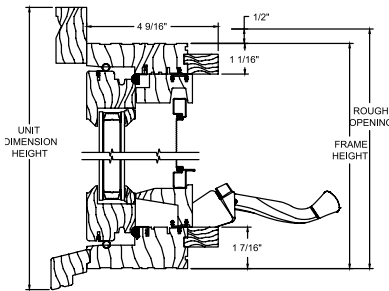
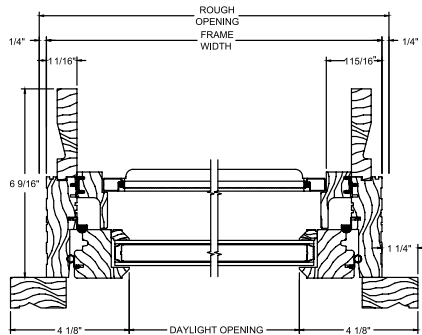
Divided lites are optional.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

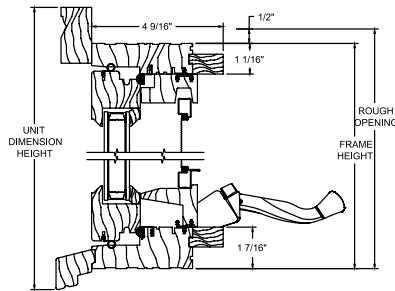
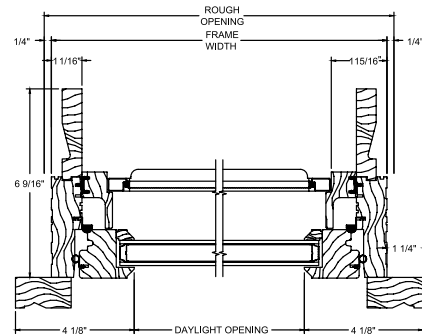
Additional and the most current drawings are available at www.kolbewindows.com.

Casements | Cross Section Drawings

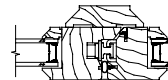
Crank-Out Casement



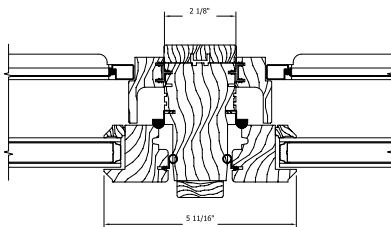
French Casement



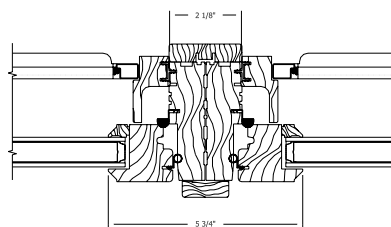
Wood Meeting Styles



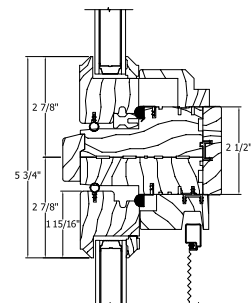
Crank-Out Casement Standard Mullion



Crank-Out Casement Narrow Mullion

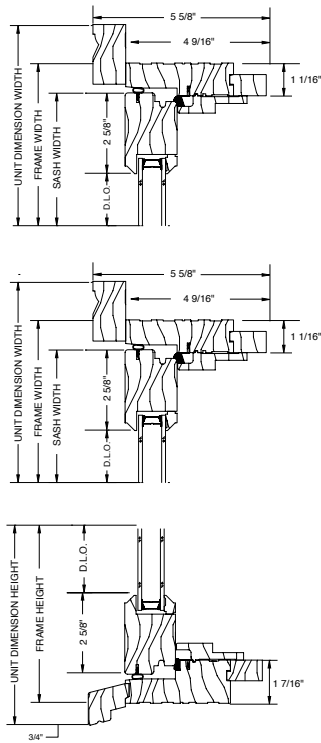


Rectangular Transoms Stacked over Crank-Out Casement



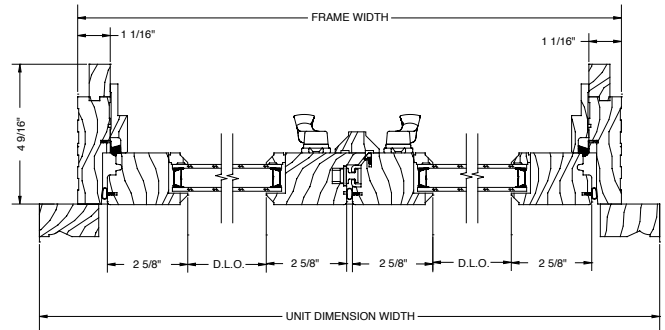
NOTE: Drawings are not to scale. Segment head and half-circle top casement drawings are similar to standard casement drawings shown. Additional and the most current drawings are available at www.kolbewindows.com.

Push-Out Casement

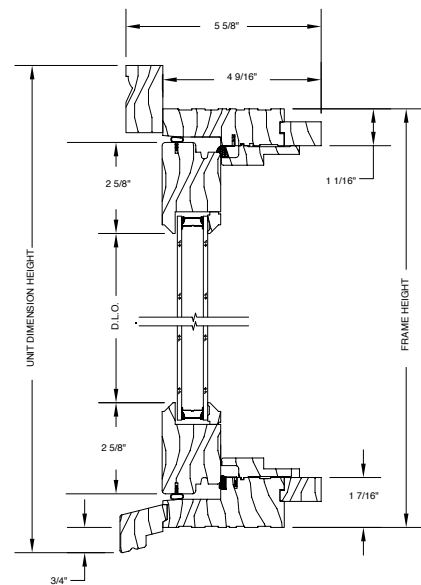


French Push-Out Casement

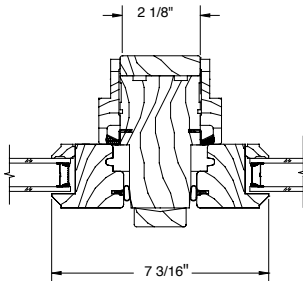
Horizontal Section



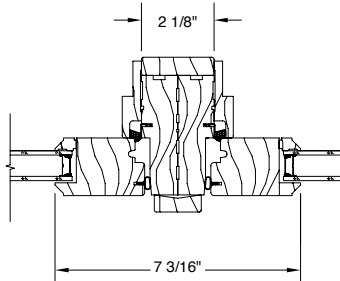
Vertical Section



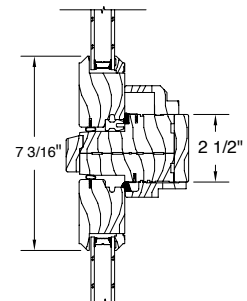
Push-Out Casement Standard Mullion



Push-Out Casement Narrow Mullion



Rectangular Transom Stacked over Push-Out Casement

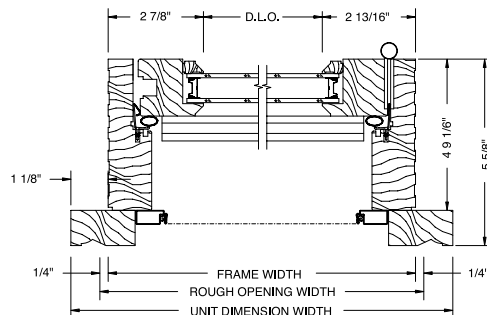


NOTE: Drawings are not to scale. Segment head and half-circle top casement drawings are similar to standard casement drawings shown. Additional and the most current drawings are available at www.kolbewindows.com.

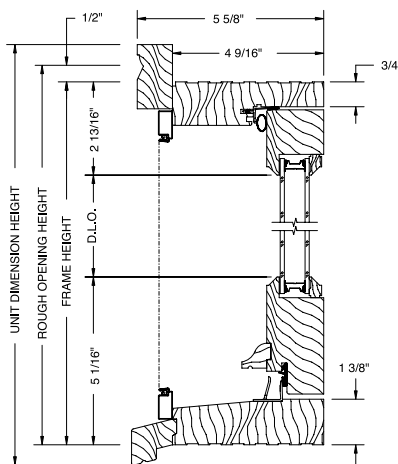
Casements | Cross Section Drawings

Inswing Casement

Horizontal Section

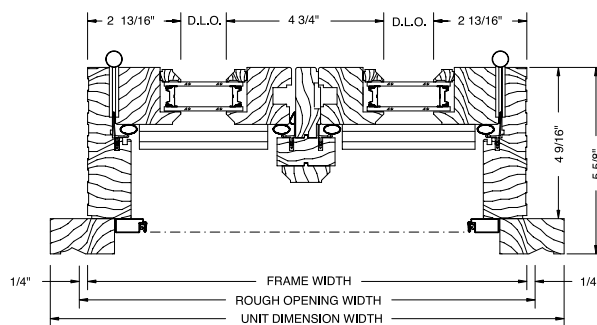


Vertical Section



2-Wide French Inswing Casement

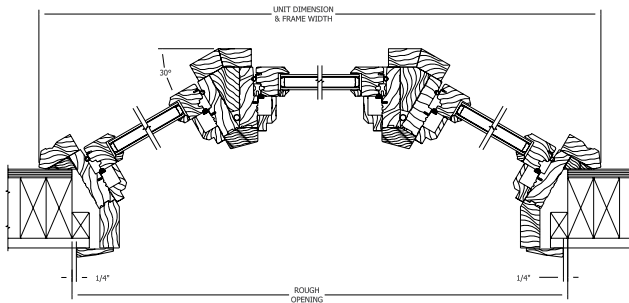
Horizontal Section



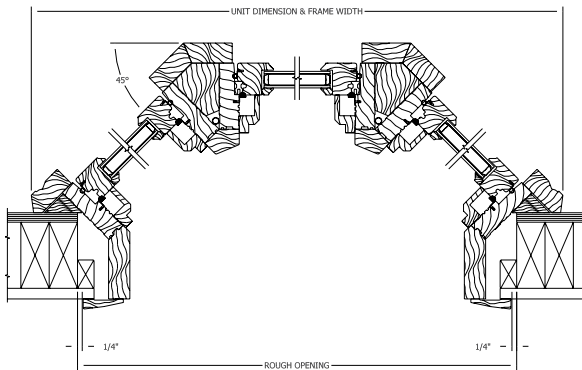
NOTE: Drawings are not to scale. Additional and the most current drawings are available at www.kolbewindows.com.

Casement Bay Window

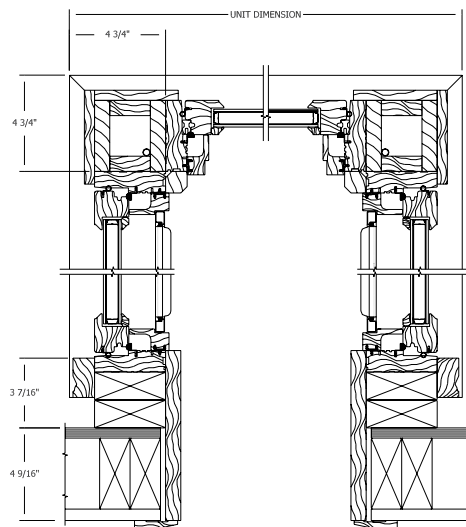
30° Horizontal Section



45° Horizontal Section

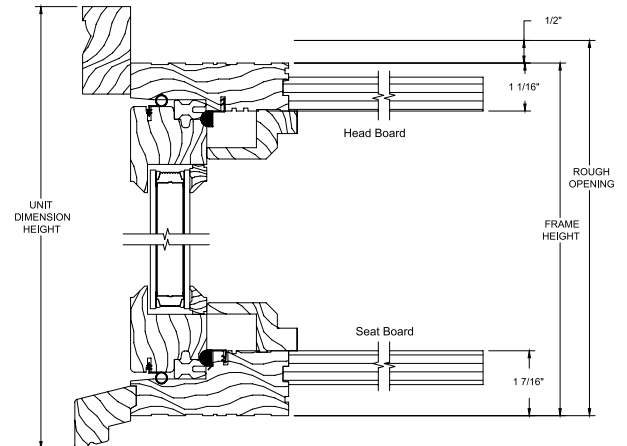


90° Horizontal Section



Casement Bay Window Stationary Picture Unit

Vertical Section

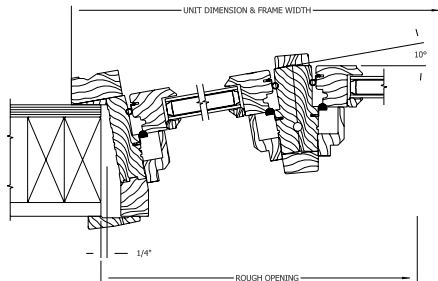


NOTE: Drawings are not to scale. Casement bay vertical drawings are similar to casement bow window vertical drawings. See the following page for casement bow window drawings. Additional and the most current drawings are available at www.kolbewindows.com.

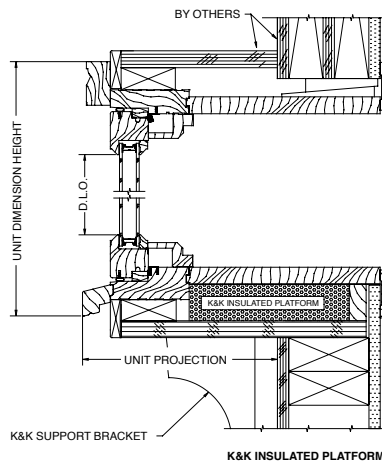
Casements | Cross Section Drawings

Casement Bow Window

Horizontal Section

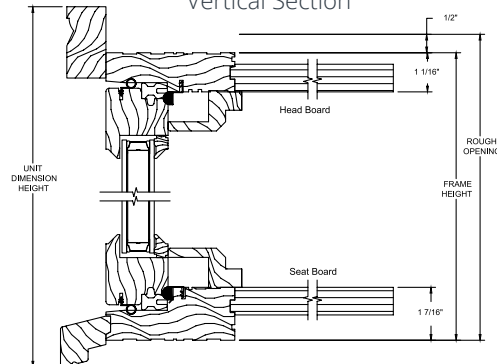


Vertical Section



Casement Bow Window Stationary Picture Unit

Vertical Section



NOTE: Drawings are not to scale. Casement bay vertical drawings are similar to casement bow vertical drawings. Additional and the most current drawings are available at www.kolbewindows.com.







Awnings

Operating outward from the bottom, Heritage Series awning windows offer ventilation while keeping the exterior elements at bay. Their versatility can also create architectural interest in small spaces. Combined with awning picture windows, awnings can help to create a room with plenty of natural light, airflow, and a terrific view.

Awnings | Push-out Awnings | Picture Units | Picture Combination Units | Mulled Configurations



Crank-Out Awnings

Crank-out awnings open out from the bottom with a crank handle that folds down when not in use. Choose motorized operators for an effortless way to open and close your window, especially if it's in a hard-to-reach place.



Crank-Out Awning Standard Features

- ▶ 1-3/4" thick sash
- ▶ Overall jamb width is 4-9/16" (*basic box width is 3-1/2"*)
- ▶ 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
- ▶ Exterior wood parts are treated
- ▶ Exterior frame and sash are latex primed
- ▶ Interior screens with Clay-colored aluminum frames and BetterVue® fiberglass mesh
- ▶ Clay-colored folding handles, operator covers and multi-point locks
- ▶ Folding corrosion resistant operators with concealed, adjustable hinges

NOTE: All measurements are nominal.

Hardware

- ▶ Folding handles in Clay (*standard*), White, Beige, Bright Brass, Antique Brass, Satin Nickel, Antique Nickel, Rustic Umber and Matte Black.
- ▶ Multi-point locking system* (*standard*), quickly and securely locks units from one convenient location. Multi-point lock handles will match operator handle colors.

*Not available on units with a box size smaller than 1' 4".

Folding Handle
(shown in Clay)



Folding Handle with Custodial Lock
(shown in Matte Black)



Multi-Point Locking Lever
(shown in Clay)





Crank-Out Awning Options

Glass (pg. 184)

- ▶ LoE-180
- ▶ LoE³-340
- ▶ LoE³-366
- ▶ ThermaPlus™ LoE
- ▶ Neat®
- ▶ Triple pane
- ▶ Tempered or laminated
- ▶ Other options standard to the industry

Divided Lites (pgs. 185-186)

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/8", 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 7/8" or 1-1/8" bars and full surrounds

Screens

- ▶ 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
- ▶ Retractable screen kit
- ▶ Retractable screen covers available as beveled
(standard) or square

Exterior Finishes (pg. 183)

- ▶ K-Kron II exterior paint finish

NOTE: All measurements are nominal.

Other Options *(custom options are also available)*

- ▶ Other wood species and FSC-certified wood (pg. 182)
- ▶ Interior prefinishing (pg. 182)
- ▶ Interior casing
- ▶ Prep for stool
- ▶ Exterior brickmould and casing (pg. 187)
- ▶ Projected sill nosing, extended sill horns or no sill nosing
- ▶ Ovolo and square profile glazing beads and interior divided lite bars (pgs. 185-186)
- ▶ Universal design awning handle and lock in White or Clay
- ▶ Motorized window system
- ▶ Extension jambs *(up to 12" applied; over 12" shipped loose for field application)*
- ▶ Galvanized steel installation clips
- ▶ High performance modifications

Push-Out Awnings

The exceedingly simple operation of push-out awning windows makes them ideal for adding ventilation to any room. The sash pushes out and pulls in tightly to the frame. Weather-stripping prevents air infiltration, making them another great energy-efficient option.



Push-Out Awning Standard Features

- ▶ 1-3/4" thick sash
- ▶ Overall jamb width is 4-9/16" (*basic box width is 3-1/2" on wood units, plus extensions*)
- ▶ 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
- ▶ Exterior wood parts are treated
- ▶ Exterior frame and sash are latex primed
- ▶ Single-point lever handle in an Oil-Rubbed* finish
- ▶ Concealed hinges (*segment head and half-circle top units use Tri-Euro hinges for added support*)

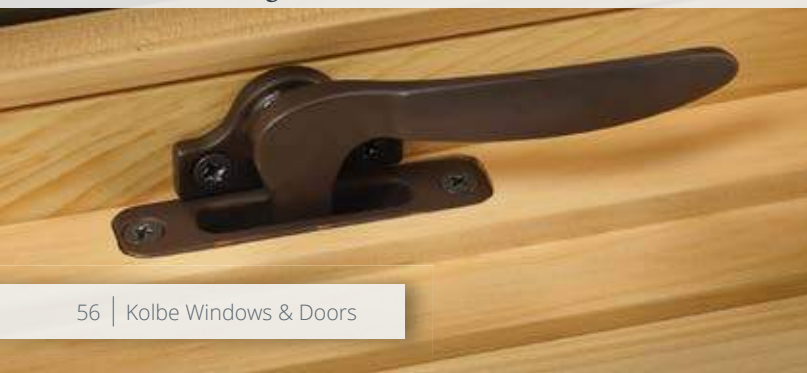
NOTE: All measurements are nominal.

Hardware

- ▶ Push-out, single-point handles in Oil-Rubbed* (*standard*), Natural Brass and Satin Nickel finishes.
- ▶ Multi-point handles in Oil-Rubbed*, Natural Brass and Satin Nickel finishes.

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

Single-Point Lock (*shown in Oil-rubbed**)



Multi-Point Lock (*shown in Satin Nickel*)





© Tarleton Photography



Push-Out Awning Options

Glass *(pg. 184)*

- ▶ LoE-180
- ▶ LoE³-340
- ▶ LoE³-366
- ▶ ThermaPlus™ LoE
- ▶ Neat®
- ▶ Triple pane
- ▶ Tempered or laminated
- ▶ Other options standard to the industry

Divided Lites *(pgs. 185-186)*

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/8", 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 7/8" or 1-1/8" bars and full surrounds

Screens

- ▶ Wood frame hinged/swinging screen or retractable screen with BetterVue® fiberglass mesh *(segment head and half-circle top casements are only available with a hinged/swinging screen)*
- ▶ Retractable screen covers available as beveled *(standard)* or square
- ▶ Screens with UltraVue® fiberglass mesh *(hinged/swinging screen only)*

Exterior Finishes *(pg. 183)*

- ▶ K-Kron II exterior paint finish

































NOTE: All measurements are nominal.

Other Options *(custom options are also available)*

- ▶ Other wood species and FSC-certified wood *(pg. 182)*
- ▶ Interior prefinishing *(pg. 182)*
- ▶ Interior casing
- ▶ Prep for stool
- ▶ Exterior brickmould and casing *(pg. 187)*
- ▶ Projected sill nosing, extended sill horns or no sill nosing
- ▶ Ovolo and square profile glazing beads and interior divided lite bars *(pgs. 185-186)*
- ▶ Extension jambs *(up to 12" applied; over 12" shipped loose for field application)*
- ▶ Galvanized steel installation clips
- ▶ High performance modifications

Awnings | Elevation Charts

























Awnings | Single Units

U.D.	1'-10 1/2"	2'-2 1/2"	2'-6 1/2"	2'-8 1/2"	2'-10 1/2"	3'-2 1/2"	3'-8 1/2"	4'-2 1/2"
R.O.	1'-8 1/2"	2'-0 1/2"	2'-4 1/2"	2'-6 1/2"	2'-8 1/2"	3'-0 1/2"	3'-6 1/2"	4'-0 1/2"
G.S.	15 1/4"	19 1/4"	23 1/4"	25 1/4"	27 1/4"	31 1/4"	37 1/4"	43 1/4"
G.S.*	13 13/16"	17 13/16"	21 13/16"	23 13/16"	25 13/16"	29 13/16"	35 13/16"	41 13/16"
1'-10"								
1'-8 1/2"	1818	2018	2418	2618	2818	3018	3618	4018
2'-2"								
2'-0 1/2"	1820	2020	2420	2620	2820	3020	3620	4020
2'-6 1/2"								
2'-4 1/2"	1826	2026	2426	2626	2826	3026	3626	4026
3'-2"								
3'-0 1/2"	1830	2030	2430	2630	2830	3030	3630	4030

* Glass size for push-out awnings

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size

Awnings | Single Picture Units

U.D.	1'-10 1/2"	2'-2 1/2"	2'-6 1/2"	2'-8 1/2"	2'-10 1/2"	3'-2 1/2"	3'-8 1/2"	4'-2 1/2"
R.O.	1'-8 1/2"	2'-0 1/2"	2'-4 1/2"	2'-6 1/2"	2'-8 1/2"	3'-0 1/2"	3'-6 1/2"	4'-0 1/2"
G.S.	15 1/4"	19 1/4"	23 1/4"	25 1/4"	27 1/4"	31 1/4"	37 1/4"	43 1/4"
G.S.*	13 13/16"	17 13/16"	21 13/16"	23 13/16"	25 13/16"	29 13/16"	35 13/16"	41 13/16"
4'-2"								
4'-0 1/2"	1840	2040	2440	2640	2840	3040	3640	4040
5'-2"								
5'-0 1/2"	1850	2050	2450	2650	2850	3050	3650	4050
6'-2"								
6'-0 1/2"	1860	2060	2460	2660	2860	3060	3660	4060

* Glass size for push-out awnings

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

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Dimension Calculations



















Elevation charts provide wood unit dimensions for units with the standard 1-15/16" brickmould. Below are the calculations to determine the frame size of units with brickmould.

	Width	Height
1-15/16" brickmould; U.D. to F.S.	-2 1/2"	-2"
3-1/2" flat or profiled casing; U.D. to F.S.	-5 5/8"	-3 9/16"
3-1/2" casing and backband; U.D. to F.S.	-7 1/8"	-4 5/16"

F.S. to Sash O.S.M.	-1 15/16"	1 15/16"
Sash O.S.M. to G.S.	-2 13/16"	2 13/16"
G.S. to D.L.O.	-1"	-1"
G.S. to Screen O.S.M.	+1 9/16"	+1/2"
U.D. to G.S. (for push-outs)	-8 11/16"	-8 3/16"

F.S. = Frame Size • G.S. = Glass Size • O.S.M. = Outside Measurement
D.L.O. = Daylight Opening • U.D. = Unit Dimension










Awnings | Mull Unit Combinations 1'- 8" Widths

U.D.	1'-10 1/2"	3'-6 1/2"	5'-2 1/2"
R.O.	1'-8 1/2"	3'-4 1/2"	5'-0 1/2"
G.S.	15 1/4"	15 1/4"	15 1/4"
G.S.*	13 13/16"	13 13/16"	13 13/16"
2'-8"			
1'-6 1/2"			
5'-2"			
3'-2"			
6'-2"			
4'-2"			
8'-2"			
















* Glass size for push-out awnings

U.D. = Unit Dimension • R.O. = Rough Opening
G.S. = Glass Size (Glass sizes are shown per sash)

Awning Picture Units 1'- 8" Widths

U.D.	1'-10 1/2"	3'-6 1/2"	5'-2 1/2"
R.O.	1'-8 1/2"	3'-4 1/2"	5'-0 1/2"
G.S.	15 1/4"	15 1/4"	15 1/4"
G.S.*	13 13/16"	13 13/16"	13 13/16"
4'-2"			
5'-2"			
6'-2"			

Awning Picture Unit Combinations 1'- 8" Widths

U.D.	2'-10 1/2"	3'-6 1/2"	5'-2 1/2"
R.O.	2'-8 1/2"	3'-4 1/2"	5'-0 1/2"
G.S.	15 1/4"	15 1/4"	15 1/4"
G.S.*	13 13/16"	13 13/16"	13 13/16"
4'-10"			
5'-10"			
6'-10"			
5'-2"			
6'-2"			

* Glass size for push-out awnings

U.D. = Unit Dimension • R.O. = Rough Opening
G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional. The divided lite configuration shown for single units are typical for each sash of mullied units.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

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Awning Units & Mull Configurations 2'- 0" Widths

U.D.	2'-2 1/2"	4'-2 1/2"	6'-2 1/2"
R.O.	2'-0 1/2"	4'-0 1/2"	6'-0 1/2"
G.S.	19 1/4"	19 1/4"	19 1/4"
G.S.*	17 13/16"	17 13/16"	17 13/16"
1'-6"	20141	20142	20143
1'-4 1/2"	201412	201422	201432
2'-10"	201413	201423	201433
2'-8 1/2"	20161	20162	20163
1'-8"	201612	201622	201632
3'-2"	201613	201623	201633
3'-0 1/2"	20181	20182	20183
1'-8 1/2"	201812	201822	201832
3'-6"	201813	201823	201833
5'-2"	20201	20202	20203
5'-0 1/2"	202012	202022	202032
4'-2"	202013	202023	202033
6'-2"	20261	20262	20263
6'-0 1/2"	202612	202622	202632
5'-2"	20301	20302	20303
5'-0 1/2"	203012	203022	203032
3'-2"	20401	20402	20403
3'-0 1/2"	204012	204022	204032
4'-2"	204013	204023	204033
8'-2"	204012	204022	204032
8'-0 1/2"	204013	204023	204033
43 1/4"	204012	204022	204032
41 13/16"	204013	204023	204033

Awning Picture Units 2'- 0" Widths

U.D.	2'-2 1/2"	4'-2 1/2"	6'-2 1/2"
R.O.	2'-0 1/2"	4'-0 1/2"	6'-0 1/2"
G.S.	19 1/4"	19 1/4"	19 1/4"
G.S.*	17 13/16"	17 13/16"	17 13/16"
4'-2"	20401	20402	20403
4'-0 1/2"	20501	20502	20503
43 1/4"	20601	20602	20603
41 13/16"	20601	20602	20603

Awning Unit Combinations 2'- 0" Widths

U.D.	2'-2 1/2"	4'-2 1/2"	6'-2 1/2"
R.O.	2'-0 1/2"	4'-0 1/2"	6'-0 1/2"
G.S.	19 1/4"	19 1/4"	19 1/4"
G.S.*	17 13/16"	17 13/16"	17 13/16"
4'-10"	2030181	2030182	2030183
4'-8 1/2"	2030201	2030202	2030202
5'-2"	2040181	2040182	2040183
5'-0 1/2"	2040201	2040202	2040203
5'-8 1/2"	2050181	2050182	2050183
5'-6 1/2"	2050201	2050202	2050203
6'-2"	2060181	2060182	2060183
6'-0 1/2"	2060201	2060202	2060203
6'-10"	2070181	2070182	2070183
6'-8 1/2"	2070201	2070202	2070203

* Glass size for push-out awnings
U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size
(Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional. The divided lite configuration shown for single units are typical for each sash of mullied units.

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Awnings | Elevation Charts

Awning Units & Mull Configurations 2' - 6" Widths

U.D.	2'-8 1/2"	5'-2 1/2"	7'-8 1/2"
R.O.	2'-6 1/2"	5'-0 1/2"	7'-6 1/2"
G.S.	25 1/4"	25 1/4"	25 1/4"
G.S.*	23 13/16"	23 13/16"	23 13/16"
1'-6"			
1'-4 1/2"			
2'-10"			
2'-8 1/2"			
4'-2"			
4'-0 1/2"			
11 1/4"			
9 13/16"			
1'-8"			
1'-6 1/2"			
3'-2"			
3'-0 1/2"			
4'-8"			
4'-6 1/2"			
13 1/4"			
11 13/16"			
1'-10"			
1'-8 1/2"			
3'-6"			
3'-4 1/2"			
5'-2"			
5'-0 1/2"			
15 1/4"			
13 13/16"			
2'-2"			
2'-0 1/2"			
4'-2"			
4'-0 1/2"			
6'-2"			
6'-0 1/2"			
19 1/4"			
17 13/16"			
2'-8"			
2'-6 1/2"			
5'-2"			
5'-0 1/2"			
25 1/4"			
23 13/16"			
3'-2"			
3'-0 1/2"			
6'-2"			
6'-0 1/2"			
31 1/4"			
29 13/16"			
4'-2"			
4'-0 1/2"			
8'-2"			
8'-0 1/2"			
43 1/4"			
41 13/16"			

Awning Picture Units 2' - 6" Widths

U.D.	2'-8 1/2"	5'-2 1/2"	7'-8 1/2"
R.O.	2'-6 1/2"	5'-0 1/2"	7'-6 1/2"
G.S.	25 1/4"	25 1/4"	25 1/4"
G.S.*	23 13/16"	23 13/16"	23 13/16"
4'-2"			
4'-0 1/2"			
41 13/16"			
5'-2"			
5'-0 1/2"			
55 1/4"			
53 13/16"			
6'-2"			
6'-0 1/2"			
67 1/4"			
65 13/16"			

Awning Unit Combinations 2' - 6" Widths

U.D.	2'-8 1/2"	5'-2 1/2"	7'-8 1/2"
R.O.	2'-6 1/2"	5'-0 1/2"	7'-6 1/2"
G.S.	25 1/4"	25 1/4"	25 1/4"
G.S.*	23 13/16"	23 13/16"	23 13/16"
4'-10"			
4'-8 1/2"			
15 1/4" 31 1/4"			
5'-2"			
5'-0 1/2"			
19 1/4" 43 1/4"			
5'-10"			
5'-8 1/2"			
15 1/4" 43 1/4"			
6'-2"			
6'-0 1/2"			
19 1/4" 43 1/4"			
6'-10"			
6'-8 1/2"			
15 1/4" 55 1/4"			
13 13/16" 53 13/16"			

* Glass size for push-out awnings
U.D. = Unit Dimension • R.O. =
Rough Opening • G.S. = Glass Size
(Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional. The divided lite configuration shown for single units are typical for each sash of mull units.

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Awning Units & Mull Configurations 2'- 8" Widths

U.D.	2'-10 1/2"	5'-6 1/2"	8'-2 1/2"
R.O.	2'-8 1/2"	5'-4 1/2"	8'-0 1/2"
G.S.	27 1/4"	27 1/4"	27 1/4"
G.S.*	25 13/16"	25 13/16"	25 13/16"
1'-6"	28141	28142	28143
1'-4 1/2"	281412	281422	281432
2'-10"	281413	281423	281433
4'-2"	28161	28162	28163
4'-0 1/2"	281612	281622	281632
11 1/4"	281613	281623	281633
3'-2"	28181	28182	28183
3'-0 1/2"	281812	281822	281832
13 1/4"	281813	281823	281833
5'-2"	28201	28202	28203
5'-0 1/2"	282012	282022	282032
17 1/4"	282013	282023	282033
6'-2"	28261	28262	28263
6'-0 1/2"	282612	282622	282632
23 1/4"	28301	28302	28303
23 1/4"	283012	283022	283032
41 1/4"	28401	28402	28403
41 1/4"	284012	284022	284032

Awning Picture Units 2'- 8" Widths

U.D.	2'-10 1/2"	5'-6 1/2"	8'-2 1/2"
R.O.	2'-8 1/2"	5'-4 1/2"	8'-0 1/2"
G.S.	27 1/4"	27 1/4"	27 1/4"
G.S.*	25 13/16"	25 13/16"	25 13/16"
4'-2"	28401	28402	28403
4'-0 1/2"	28501	28502	28503
5'-2"	28601	28602	28603
5'-0 1/2"			
55 1/4"			
65 1/4"			

Awning Unit Combinations 2'- 8" Widths

U.D.	2'-10 1/2"	5'-6 1/2"	8'-2 1/2"
R.O.	2'-8 1/2"	5'-4 1/2"	8'-0 1/2"
G.S.	27 1/4"	27 1/4"	27 1/4"
G.S.*	25 13/16"	25 13/16"	25 13/16"
4'-10"	2830181	2830182	2830183
4'-8 1/2"	2830201	2830202	2830203
5'-2"	2840181	2840182	2840183
5'-0 1/2"	2840201	2840202	2840203
5'-8 1/2"	2850181	2850182	2850183
5'-6 1/2"			
15 1/4"			
13 1/4"			

* Glass size for push-out awnings

U.D. = Unit Dimension • R.O. = Rough Opening
G.S. = Glass Size (Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional. The divided lite configuration shown for single units are typical for each sash of mullied units.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

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Awning Units & Mull Configurations 3'- 0" Widths

U.D.	3'-2 1/2"	6'-2 1/2"	9'-2 1/2"
R.O.	3'-0 1/2"	6'-0 1/2"	9'-0 1/2"
G.S.	31 1/4"	31 1/4"	31 1/4"
G.S.*	29 13/16"	29 13/16"	29 13/16"
1'-6"			
1'-4 1/2"			
1'-4 1/2"			
2'-10"			
2'-8 1/2"			
4'-2"			
4'-0 1/2"			
11 1/4"			
9 13/16"			
11 1/4"			
9 13/16"			
11 1/4"			
9 13/16"			
1'-8"			
1'-6 1/2"			
3'-2"			
3'-0 1/2"			
4'-8"			
4'-6 1/2"			
13 1/4"			
11 13/16"			
13 1/4"			
11 13/16"			
1'-10"			
1'-8 1/2"			
3'-6"			
3'-4 1/2"			
5'-2"			
5'-0 1/2"			
15 1/4"			
13 13/16"			
15 1/4"			
13 13/16"			
2'-2"			
2'-0 1/2"			
4'-2"			
4'-0 1/2"			
6'-2"			
6'-0 1/2"			
19 1/4"			
17 13/16"			
19 1/4"			
17 13/16"			
2'-8"			
2'-6 1/2"			
5'-2"			
5'-0 1/2"			
25 1/4"			
23 13/16"			
3'-2"			
3'-0 1/2"			
6'-2"			
6'-0 1/2"			
31 1/4"			
29 13/16"			
4'-2"			
4'-0 1/2"			
8'-2"			
8'-0 1/2"			
43 1/4"			
41 13/16"			

Awning Picture Units 3'- 0" Widths

U.D.	3'-2 1/2"	6'-2 1/2"	9'-2 1/2"
R.O.	3'-0 1/2"	6'-0 1/2"	9'-0 1/2"
G.S.	31 1/4"	31 1/4"	31 1/4"
G.S.*	29 13/16"	29 13/16"	29 13/16"
4'-2"			
4'-0 1/2"			
5'-2"			
5'-0 1/2"			
6'-2"			
6'-0 1/2"			

Awning Unit Combinations 3'- 0" Widths

U.D.	3'-2 1/2"	6'-2 1/2"	9'-2 1/2"
R.O.	3'-0 1/2"	6'-0 1/2"	9'-0 1/2"
G.S.	31 1/4"	31 1/4"	31 1/4"
G.S.*	29 13/16"	29 13/16"	29 13/16"
4'-10"			
4'-8 1/2"			
5'-2"			
5'-0 1/2"			
5'-10"			
5'-8 1/2"			
6'-2"			
6'-0 1/2"			
6'-10"			
6'-8 1/2"			

* Glass size for push-out awnings

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size
(Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional. The divided lite configuration shown for single units are typical for each sash of mullied units.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

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Awning Units & Mull Configurations 3'- 6" Widths

U.D.	3'-8 1/2"	7'-2 1/2"	10'-8 1/2"
R.O.	3'-6 1/2"	7'-0 1/2"	10'-6 1/2"
G.S.	37 1/4"	37 1/4"	37 1/4"
G.S.*	35 13/16"	35 13/16"	35 13/16"
1'-6"			
1'-4 1/2"			
2'-10"			
4'-2"			
4'-0 1/2"			
11 1/4"			
9 13/16"			
1'-8"			
1'-6 1/2"			
3'-2"			
4'-8"			
4'-6 1/2"			
13 1/4"			
11 13/16"			
1'-10"			
1'-8 1/2"			
3'-6"			
5'-2"			
5'-0 1/2"			
15 1/4"			
13 13/16"			
2'-2"			
4'-2"			
6'-2"			
6'-0 1/2"			
19 1/4"			
17 13/16"			
2'-8"			
5'-2"			
5'-0 1/2"			
25 1/4"			
23 13/16"			
3'-2"			
6'-2"			
6'-0 1/2"			
31 1/4"			
29 13/16"			
4'-2"			
8'-2"			
8'-0 1/2"			
43 1/4"			
41 13/16"			

Awning Picture Units 3'- 6" Widths

U.D.	3'-8 1/2"	7'-2 1/2"	10'-8 1/2"
R.O.	3'-6 1/2"	7'-0 1/2"	10'-6 1/2"
G.S.	37 1/4"	37 1/4"	37 1/4"
G.S.*	35 13/16"	35 13/16"	35 13/16"
4'-2"			
4'-0 1/2"			
43 1/4"			
5'-2"			
5'-0 1/2"			
55 1/4"			
53 13/16"			
6'-2"			
6'-0 1/2"			
67 1/4"			
65 13/16"			

Awning Unit Combinations 3'- 6" Widths

U.D.	3'-8 1/2"	7'-2 1/2"	10'-8 1/2"
R.O.	3'-6 1/2"	7'-0 1/2"	10'-6 1/2"
G.S.	37 1/4"	37 1/4"	37 1/4"
G.S.*	35 13/16"	35 13/16"	35 13/16"
4'-10"			
4'-8 1/2"			
15 1/4"			
13 13/16"			
5'-2"			
5'-0 1/2"			
19 1/4"			
17 13/16"			
5'-10"			
5'-8 1/2"			
15 1/4"			
13 13/16"			
6'-2"			
6'-0 1/2"			
19 1/4"			
17 13/16"			
6'-10"			
6'-8 1/2"			
15 1/4"			
13 13/16"			

* Glass size for push-out awnings

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size
(Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

Divided lites are optional. The divided lite configuration shown for single units are typical for each sash of mullied units.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Awnings | Elevation Charts

Awning Units & Mull Configurations 4'-0" Widths

U.D.	4'-2 1/2"	8'-2 1/2"	12'-2 1/2"
R.O.	4'-0 1/2"	8'-0 1/2"	12'-0 1/2"
G.S.	43 1/4"	43 1/4"	43 1/4"
G.S.*	41 13/16"	41 13/16"	41 13/16"
1'-6"			
1'-4 1/2"			
1'-1 1/4"			
2'-10"			
2'-8 1/2"			
2'-6"			
2'-4 1/2"			
2'-2"			
1'-8"			
1'-6 1/2"			
1'-4 1/2"			
1'-2 1/2"			
3'-2"			
3'-0 1/2"			
2'-10"			
2'-8 1/2"			
2'-6"			
2'-4 1/2"			
2'-2"			
4'-8"			
4'-6 1/2"			
4'-4 1/2"			
4'-2 1/2"			
1'-10"			
1'-8 1/2"			
1'-6 1/2"			
1'-4 1/2"			
1'-2 1/2"			
3'-6"			
3'-4 1/2"			
3'-2"			
3'-0 1/2"			
2'-10"			
2'-8 1/2"			
2'-6"			
2'-4 1/2"			
2'-2"			
5'-2"			
5'-0 1/2"			
4'-10"			
4'-8 1/2"			
4'-6 1/2"			
4'-4 1/2"			
4'-2 1/2"			
6'-2"			
6'-0 1/2"			
5'-10"			
5'-8 1/2"			
5'-6 1/2"			
5'-4 1/2"			
5'-2"			
5'-0 1/2"			
4'-10"			
4'-8 1/2"			
4'-6 1/2"			
4'-4 1/2"			
4'-2 1/2"			
6'-2"			
6'-0 1/2"			
5'-10"			
5'-8 1/2"			
5'-6 1/2"			
5'-4 1/2"			
5'-2"			
5'-0 1/2"			
4'-10"			
4'-8 1/2"			
4'-6 1/2"			
4'-4 1/2"			
4'-2 1/2"			
6'-2"			
6'-0 1/2"			
5'-10"			
5'-8 1/2"			
5'-6 1/2"			
5'-4 1/2"			
5'-2"			
5'-0 1/2"			
4'-10"			
4'-8 1/2"			
4'-6 1/2"			
4'-4 1/2"			
4'-2 1/2"			
6'-2"			
6'-0 1/2"			
5'-10"			
5'-8 1/2"			
5'-6 1/2"			
5'-4 1/2"			
5'-2"			
5'-0 1/2"			
4'-10"			
4'-8 1/2"			
4'-6 1/2"			
4'-4 1/2"			
4'-2 1/2"			

Awning Picture Units 4'-0" Widths

U.D.	4'-2 1/2"	8'-2 1/2"	12'-2 1/2"
R.O.	4'-0 1/2"	8'-0 1/2"	12'-0 1/2"
G.S.	43 1/4"	43 1/4"	43 1/4"
G.S.*	41 13/16"	41 13/16"	41 13/16"
4'-2"			
4'-0 1/2"			
4'-0 1/4"			
5'-2"			
5'-0 1/2"			
5'-0 1/4"			
6'-2"			
6'-0 1/2"			
6'-0 1/4"			

Awning Unit Combinations 4'-0" Widths

U.D.	4'-2 1/2"	8'-2 1/2"	12'-2 1/2"
R.O.	4'-0 1/2"	8'-0 1/2"	12'-0 1/2"
G.S.	43 1/4"	43 1/4"	43 1/4"
G.S.*	41 13/16"	41 13/16"	41 13/16"
4'-10"			
4'-8 1/2"			
4'-8 1/4"			
4'-8 1/8"			
5'-2"			
5'-0 1/2"			
5'-0 1/4"			
5'-0 1/8"			
5'-8 1/2"			
5'-8 1/4"			
5'-8 1/8"			
6'-2"			
6'-0 1/2"			
6'-0 1/4"			
6'-0 1/8"			
6'-8 1/2"			
6'-8 1/4"			
6'-8 1/8"			

* Glass size for push-out awnings

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size
(Glass sizes are shown per sash)

NOTE: All measurements are nominal. Elevation charts are not to scale.

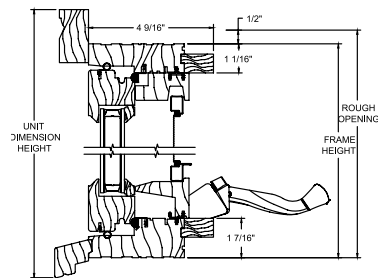
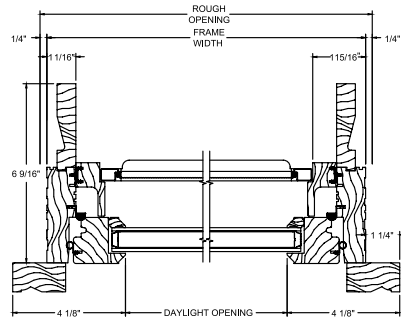
Divided lites are optional. The divided lite configuration shown for single units are typical for each sash of mullied units.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

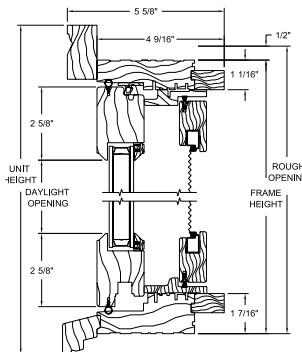
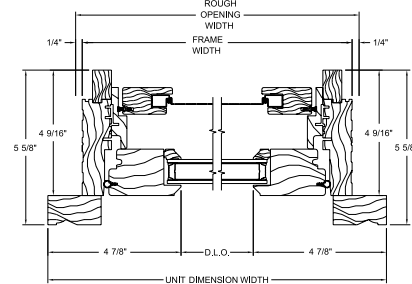
Additional and the most current drawings are available at www.kolbewindows.com.

Awnings | Cross Section Drawings

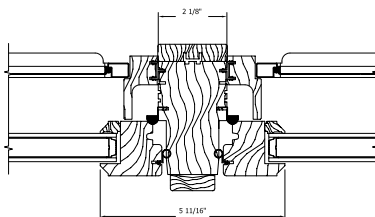
Crank-Out Awning



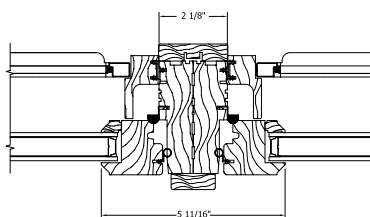
Push-Out Awning



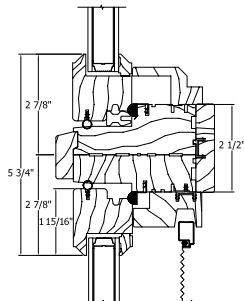
Crank-Out Awning Standard Mullion



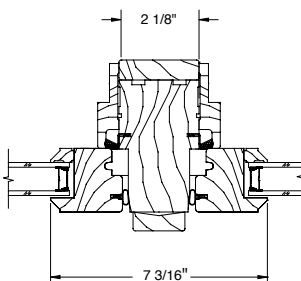
Crank-Out Awning Narrow Mullion



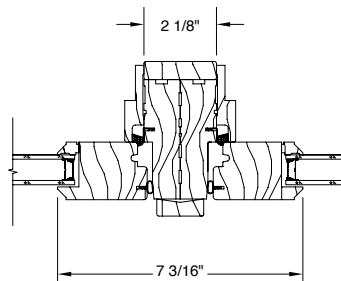
Picture Unit Stacked Over Crank-Out Awning



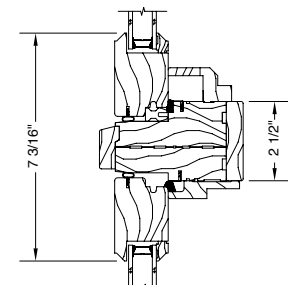
Push-Out Awning Standard Mullion



Push-Out Awning Narrow Mullion



Picture Unit Stacked Over Push-Out Awning



NOTE: Drawings are not to scale. Additional and the most current drawings are available at www.kolbewindows.com.

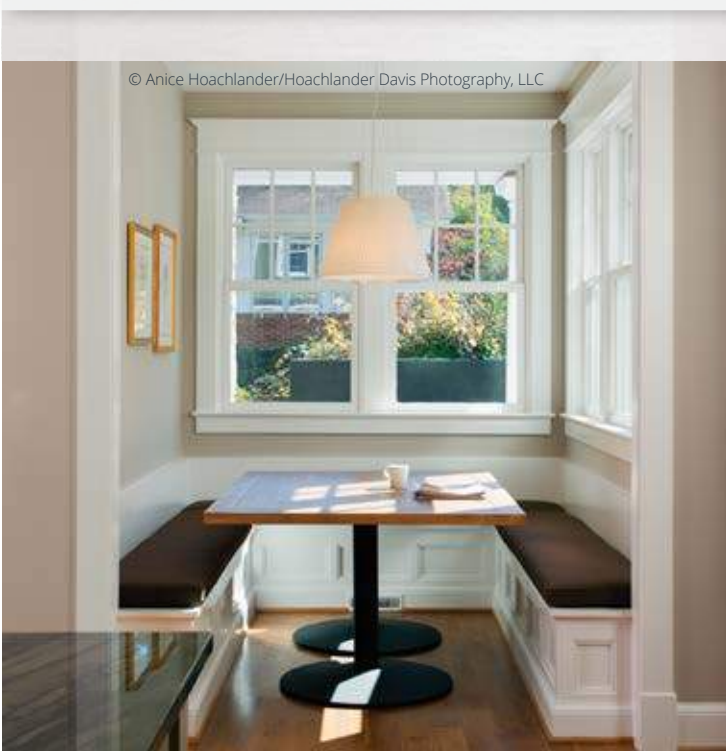




Double Hungs

Smooth operation, venting options, removable sash for easy cleaning, and classic styling are only the most obvious features of Heritage Series double hung windows. Kolbe offers a variety of double hung models to suit your project, whether it be residential, commercial, large scale, historic preservation or remodeling. There are many options and configurations to choose from as well, including bow and bay units, cottage-style units or triple pane glass options for increased energy efficiency.

*Sterling Double Hungs | XL Sterling Double Hungs | Majesta® Double Hungs | Traditional Double Hungs
Old World Classic Double Hungs | Cottage-Style & Reverse-Cottage Style | Studio & Transom Units
Picture Combination Units | Bay Units | Segment Head & Half-Circle Top Units | Single Hungs | Replacement Sash Kits*



Sterling Double Hungs

Sterling double hungs are made to blend seamlessly with the grandest décor. A patented interior wood cover conceals the jambliner, while giving the windows a rich, full-wood appearance. The lock system boosts performance to a level not often reached by double hung windows.

Patents: 7,296,381 | 7,448,164 | 8,196,355 | 8,429,856

Sterling Double Hung Standard Features

- ▶ 1-3/4" thick sash
- ▶ Overall jamb width is 4-9/16" (*basic box width is 4-9/16"*)
- ▶ Frame thickness is 3/4" at side jambs and head
- ▶ Sill thickness is 1-3/16", slope is 14°
- ▶ Constructed of pine, with pine interior stops and wood mull casings on mullied units
- ▶ Energy efficient, insulating LoE²-270 glass
- ▶ Glazed to the interior with beveled wood glazing beads
- ▶ 1-15/16" exterior brickmould applied
- ▶ Exterior wood parts are treated
- ▶ Exterior frame and sash are latex primed
- ▶ Wood interior head parting stop
- ▶ Clay-colored heavy duty Signature sash lock with a dual positioning lever allows sash to be unlocked, operated and tilted in from one location
- ▶ Spring-loaded block-and-tackle mechanical balances to carry the sash weight
- ▶ Concealed balance system
- ▶ Patented wood-wrapped jambliner closure on the interior (unless interior is prefinished white or primed, then jambliner will be white) and a primed, extruded aluminum jambliner closure on the exterior hides the balance system
- ▶ Pine-veneered head and seat boards; unique narrow mullions on bay units

NOTE: All measurements are nominal.

Wood-wrapped jambliner closure on the interior (*shown*) and a primed, extruded aluminum jambliner closure on the exterior hide the PVC jambliners.



Heavy duty sash lock with dual positioning lever allows sash to be unlocked, operated, and tilted in from one location.

Hardware

- ▶ Pick-resistant Signature or Spoon sash lock with a concealed locking system and tilt latches. Available in Clay (*standard*), White, Beige, Bright Brass, Antique Brass, Satin Nickel, Bright Chrome[†], Brushed Chrome[†], Antique Nickel, Rustic Umber or Matte Black.
- ▶ Curved, square, or traditional style sash lift handles for ease of use. Available in Clay, White, Beige, Bright Brass, Antique Brass, Satin Nickel, Bright Chrome[†], Brushed Chrome[†], Antique Nickel, Rustic Umber, Oil-Rubbed^{*} or Matte Black.
- ▶ Custodial lock to prohibit unauthorized operation (*not pictured*).
- ▶ Universal design crank handle hardware kit offers ease-of-use for people with physical limitations. Available in White (*not pictured*).

[†] Brushed Chrome finishes are only available on Signature sash locks and curved sash lift handles.

^{*} The Oil-Rubbed finish is not available on curved sash lift handles. This is a living finish, which means that it will change appearance over time with use.

Signature Sash Lock
(shown in Antique Nickel)



Spoon Sash Lock
(shown in Antique Brass)



Curved Sash Lift Handle
(shown in Bright Chrome)





Sterling Double Hung Options

Glass (pg. 184)

- ▶ LoE-180
- ▶ LoE³-340
- ▶ LoE³-366
- ▶ ThermaPlus™ LoE
- ▶ Neat®
- ▶ Triple pane
- ▶ Tempered or laminated
- ▶ Other options standard to the industry

Divided Lites (pgs. 185-186)

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/8", 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 7/8" or 1-1/8" bars and full surrounds

Screens

- ▶ Full or half screens with aluminum frames and options for BetterVue® or UltraVue® fiberglass screen mesh or aluminum screen mesh in either aluminum or charcoal colors; frames will match the exterior color of the unit
- ▶ Retractable screen kit (pg. 188)
- ▶ Retractable screen covers available as beveled (standard) or square
- ▶ StormGuard combination storm/screen units

Exterior Finishes (pg. 183)

- ▶ K-Kron II exterior paint finish

Other Options (custom options are also available)

- ▶ Other wood species and FSC-certified wood (pg. 182)
- ▶ Interior prefinishing (pg. 182)
- ▶ Interior casing
- ▶ Exterior brickmould and casing (pg. 187)
- ▶ Prep for stool
- ▶ Projected sill nosing, extended sill horns or no sill nosing
- ▶ Ovolo and square profile glazing beads and interior divided lite bars (pgs. 185-186)
- ▶ Class 5 balances available for commercial specifications or larger units
- ▶ Custodial locks
- ▶ Universal design crank handle hardware kit in White (pg. 189)
- ▶ Extension jambs (up to 12" applied; over 12" shipped loose for field application)
- ▶ Factory-installed Window Opening Control Device (WOCD) (pg. 188)
- ▶ Sash limiters for safety
- ▶ Galvanized steel installation clips
- ▶ Insulated platforms, support brackets and oak-veneered head and seat boards for bay units
- ▶ High performance modifications

NOTE: All measurements are nominal.

Traditional Style Sash Lift Handle
(shown in Rustic Umber)



Square Style Sash Lift Handle
(shown in Satin Nickel)



XL Sterling Double Hungs

The award-winning XL Sterling double hung expands the architecturally-correct design and high performance of a Sterling double hung. Quality components combined with thoughtful product design allow the XL Sterling double hung to be the perfect fit for any oversized commercial or residential opening.

Patents: 7,296,381 | 7,448,164 | 8,196,355 | 8,429,856



XL Sterling Double Hung Standard Features

- ▶ 1-3/4" thick sash
- ▶ Overall jamb width is 5" (*basic box width is 5"*)
- ▶ Frame thickness is 3/4" at side jambs and head
- ▶ Sill thickness is 1-3/16"; slope is 14°
- ▶ Constructed of pine, with pine interior stops and wood mull casings on mull units
- ▶ 1-15/16" exterior brickmould applied
- ▶ Exterior wood parts are treated
- ▶ Exterior frame and sash are latex primed
- ▶ Energy efficient, insulating LoE²-270 glass
- ▶ Glazed to the interior with beveled wood glazing beads
- ▶ Wood interior head parting stop
- ▶ Clay-colored heavy duty Signature sash lock with a dual positioning lever allows sash to be unlocked and operated from one location
- ▶ Class 5 balances capable of carrying sash up to 200 lbs.
- ▶ Concealed balance system
- ▶ Patented wood wrapped jambliner closure on the interior (*unless interior is prefinished white or primed, then jambliner will be white*) and extruded aluminum jambliner closure on the exterior hides balance system

NOTE: All measurements are nominal.



XL Sterling double hungs have the same full-wood appearance as Sterling double hungs; the jambs are concealed by wood jambliner covers.



A retractable screen kit (*pg. 188*) is available to help disguise the screen. Wood components match the species and finish of the interior wood.

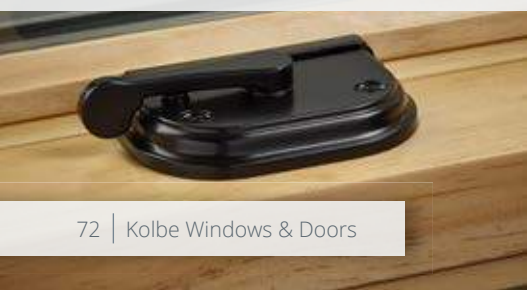
Hardware

- ▶ Pick-resistant Signature or Spoon sash lock with a concealed locking system and tilt latches. Available in Clay (*standard*), White, Beige, Bright Brass, Antique Brass, Satin Nickel, Bright Chrome[†], Brushed Chrome[†], Antique Nickel, Rustic Umber or Matte Black.
- ▶ Curved, square, or traditional style sash lift handles for ease of use. Available in Clay, White, Beige, Bright Brass, Antique Brass, Satin Nickel, Bright Chrome[†], Brushed Chrome[†], Antique Nickel, Rustic Umber, Oil-Rubbed^{*} or Matte Black.
- ▶ Custodial lock to prohibit unauthorized operation (*not pictured*).
- ▶ Universal design crank handle hardware kit offers ease-of-use for people with physical limitations. Available in White (*not pictured*).

[†] Brushed Chrome finishes are only available on Signature sash locks and curved sash lift handles.

^{*} The Oil-Rubbed finish is not available on curved sash lift handles. This is a living finish, which means that it will change appearance over time with use.

Signature Sash Lock
(shown in Matte Black)



Spoon Sash Lock
(shown in Satin Nickel)



Curved Sash Lift Handle
(shown in Clay)





Tim Cuppett Architects & Vogel Builders
© Ryann Ford Photography



XL Sterling Double Hung Options

Glass (pg. 184)

- ▶ LoE-180
- ▶ LoE³-340
- ▶ LoE³-366
- ▶ ThermaPlus™ LoE
- ▶ Neat®
- ▶ Triple pane
- ▶ Tempered or laminated
- ▶ Other options standard to the industry

Divided Lites (pgs. 185-186)

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/8", 1-3/4", 2-1/4" or 4-1/2" bars
- ▶ Grilles-in-the-airspace

Insect Screens

- ▶ Full or half insect screen with aluminum frame and options for BetterVue® or UltraVue® fiberglass mesh or aluminum mesh; frame will match the exterior color of the unit
- ▶ Retractable insect screen kit with beveled or square cover (pg. 188)

Exterior Finishes (pg. 183)

- ▶ K-Kron II exterior paint finish

NOTE: All measurements are nominal.

Other Options (custom options are also available)

- ▶ Other wood species and FSC-certified wood (pg. 182)
- ▶ Interior prefinishing (pg. 182)
- ▶ Exterior brickmould and casing (pg. 187)
- ▶ Prep for stool
- ▶ Ovolo or square profile glazing beads and interior divided lite bars (pgs. 185-186)
- ▶ Extension jambs (up to 12" applied, over 12" shipped loose for field application)
- ▶ Segment head, cottage style segment head, half-circle top, and cottage style half-circle top units
- ▶ Factory-installed Window Opening Control Device (WOCD) (pg. 188)
- ▶ Sash limiters for safety
- ▶ Galvanized steel installation clips
- ▶ High performance modifications

Traditional Style Sash Lift Handle
(shown in Antique Brass)



Square Style Sash Lift Handle
(shown in Matte Black)



Majesta® Double Hungs

Majesta double hungs are made-to-order in sizes as large as 6 feet wide by 12 feet tall to allow even larger openings in the most expansive of spaces. The balances are specially made to match the size of the window and the hardware is positioned in an easily accessible place, so this extra large window is very easy to operate.



Majesta Double Hung Standard Features

- ▶ 2-1/4" thick sash
- ▶ Overall jamb width is 6-9/16" (*basic box width is 6-9/16"*)
- ▶ Frame thickness is 3/4" at side jambs and head
- ▶ Sill thickness is 1-3/16", slope is 14°
- ▶ Top rail is 3", stiles are 2-1/8", and bottom rail is 4-1/8"
- ▶ Constructed of pine with pine interior head parting stops and side stops
- ▶ Horizontal sash parts are constructed with engineered core for added strength
- ▶ Energy efficient, insulating LoE²-270 glass
- ▶ 1-15/16" exterior brickmould applied
- ▶ Exterior frame and sash are latex primed
- ▶ Exterior wood parts are treated
- ▶ Innovative heavy-duty Bright Brass sash locks: top lock eliminates sash drop and is located at the center of the top rail on the top sash; bottom lock is located at the center of the bottom rail on the bottom sash for operating convenience
- ▶ Class 5 balance system capable of carrying sash up to 200 lbs.
- ▶ Concealed jambliners and balance system using a wood-wrapped jambliner closure on the interior and an aluminum closure on the exterior
- ▶ Innovative design secures the sash in place allowing this unit to meet ratings up to CW-PG65 for certain units.

NOTE: All measurements are nominal.

Hardware

- ▶ Standard heavy-duty sash locks are placed on the top rail and the bottom rail. Available in Bright Brass (*standard*), Satin Nickel or Rustic Umber.
- ▶ Keyed custodial lock prohibits unauthorized operation (*not pictured*).
- ▶ Traditional style or curved sash lift handles (*two per sash*). Available in Bright Brass, Satin Nickel or Rustic Umber.
- ▶ Hook and pole device to help unlock and lower the top sash. Available in Bright Brass (*standard*), Rustic Umber and Satin Nickel finishes.

Bottom Rail Turn Knob Lock

(shown in Rustic Umber)



Top Rail Lock

(shown in Rustic Umber)



Traditional Style Sash Lift Handle (shown in Bright Brass)



Curved Sash Lift Handle (shown in Satin Nickel)





Majesta Double Hung Options

Glass (pg. 184)

- ▶ LoE-180
- ▶ LoE³-340
- ▶ LoE³-366
- ▶ ThermaPlus™ LoE
- ▶ Neat®
- ▶ Triple pane
- ▶ Tempered or laminated
- ▶ Other options standard to the industry

Divided Lites (pgs. 185-186)

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

Exterior Finishes (pg. 183)

- ▶ K-Kron II exterior paint finish

Insect Screens

- ▶ Full or half insect screen with aluminum frame and options for BetterVue® or UltraVue® fiberglass mesh or aluminum mesh; frame will match the exterior color of the unit

NOTE: All measurements are nominal.

Other Options (custom options are also available)

- ▶ Other wood species and FSC-certified wood (pg. 182)
- ▶ Interior prefinishing (pg. 182)
- ▶ Interior casing
- ▶ Exterior brickmould and casing (pg. 187)
- ▶ Prep for stool
- ▶ Projected sill nosing, extended sill horns or no sill nosing
- ▶ Ovolo and square profile glazing beads and interior divided lite bars (pgs. 185-186)
- ▶ Keyed custodial locks
- ▶ Hook and pole device to help unlock and lower the top sash
- ▶ Sash limiters for safety
- ▶ Extension jambs (up to 12" applied; over 12" shipped loose for field application)
- ▶ Galvanized steel installation clips

Concealed wood jamb liners provide a clean look



Optional triple pane glazing for added energy efficiency



Traditional Double Hungs

Kolbe's traditional double hungs offer classic styling, with a sloped sill to help guard against water damage. Available as cottage-style units, radius-top shapes or 30° and 45° bays, traditional double hungs open and close smoothly and effortlessly, with a tilt-in or removable sash for easy cleaning.



Traditional Double Hung Standard Features

- ▶ 1-3/8" thick sash
- ▶ Overall jamb width is 4-9/16" (*basic box width is 4-9/16"*)
- ▶ Frame thickness is 3/4" at side jambs and head
- ▶ Sill thickness is 1-3/16", slope is 14°
- ▶ 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
- ▶ Exterior wood parts are treated
- ▶ Exterior frame and sash are latex primed
- ▶ Rigid PVC head parting stop with flexible fins and waterseal at the sill
- ▶ Clay-colored heavy duty sash lock
- ▶ Machined finger grooves on the top rail of the upper sash and bottom rail of the lower sash
- ▶ Spring-loaded block-and-tackle mechanical balances to carry the sash weight
- ▶ Beige PVC jambliners with compression foam backing
- ▶ Pine-veneered head and seat boards; unique narrow mullions and cable support system on bay units

NOTE: All measurements are nominal.

Hardware

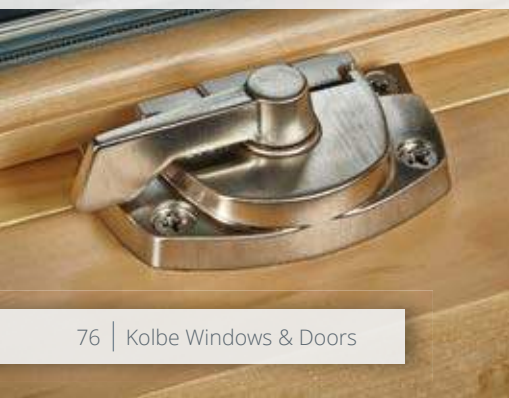
- ▶ Sash lock in Clay (*standard*), White, Beige, Bright Brass, Antique Brass, Satin Nickel, Brushed Chrome[†], Antique Nickel, Rustic Umber, Oil-Rubbed* or Matte Black.
- ▶ Curved, square, or traditional style sash lift handle for ease of use. Available in Clay, White, Beige, Bright Brass, Antique Brass, Satin Nickel, Bright Chrome[†], Brushed Chrome[†], Antique Nickel, Rustic Umber, Oil-Rubbed* or Matte Black.
- ▶ Universal design crank handle hardware kit offers ease-of-use for people with physical limitations. Available in White (*not pictured*).

[†] Brushed Chrome finishes are only available on Signature sash locks and curved sash lift handles.

* The Oil-Rubbed finish is not available on curved sash lift handles. This is a living finish, which means that it will change appearance over time with use.

Sash Lock

(shown in Satin Nickel)



Curved Sash Lift Handle

(shown in Clay)



Traditional Style Sash Lift Handle

(shown in Antique Nickel)





Traditional Double Hung Options

Glass (pg. 184)

- ▶ LoE-180
- ▶ LoE³-340
- ▶ LoE³-366
- ▶ ThermaPlus™ LoE
- ▶ Neat®
- ▶ Triple pane
- ▶ Tempered or laminated
- ▶ Other options standard to the industry

Divided Lites (pgs. 185-186)

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/8", 1-3/4", 2-1/4", or 4-1/2" bars
- ▶ True divided lites with 1/2" 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

Screens

- ▶ Full or half screens with aluminum frames and options for BetterVue® or UltraVue® fiberglass screen mesh or aluminum screen mesh; frames will match the exterior color of the unit
- ▶ StormGuard combination storm/screen units

Exterior Finishes (pg. 183)

- ▶ K-Kron II exterior paint finish

NOTE: All measurements are nominal.

Other Options (custom options are also available)

- ▶ Other wood species and FSC-certified wood (pg. 182)
- ▶ Interior prefinishing (pg. 182)
- ▶ Interior casing
- ▶ Exterior brickmould and casing (pg. 187)
- ▶ Prep for stool
- ▶ Projected sill nosing, extended sill horns or no sill nosing
- ▶ Ovolo and square profile glazing beads and interior divided lite bars (pgs. 185-186)
- ▶ No finger grooves in top, bottom or both sash
- ▶ Universal design crank handle hardware kit in White (pg. 189)
- ▶ White jamb liners
- ▶ Extension jambs (up to 12" applied, over 12" shipped loose for field application)
- ▶ Factory-installed Window Opening Control Device (WOCD) (pg. 188)
- ▶ Sash limiters for safety
- ▶ Galvanized steel installation clips
- ▶ Insulated platforms, support brackets, and oak-veneered head and seat boards for bay units
- ▶ Available as replacement sash kits (pg. 80)

Square Style Sash Lift Handle

(shown in Bright Brass)



Old World Classic Double Hungs

Old World Classic double hungs replicate the charm of historical double hung windows for historically-accurate renovations and projects. Their visible brass pulley system with solid brass chains and alloyed weights creates seamless operation. What's more, every Old World Classic window is specifically engineered for each unique project, offering an unprecedented level of customization.



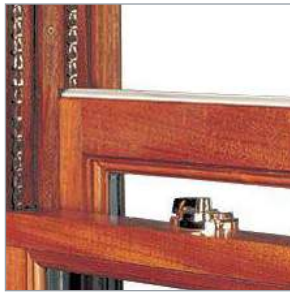
Old World Classic Double Hung Standard Features

- ▶ 1-3/4" thick sash
- ▶ Basic frame jamb width is 6-9/16"
- ▶ Constructed of pine with pine interior head parting stops and side stops
- ▶ Energy efficient, insulating LoE²-270 glass
- ▶ 1-15/16" exterior brickmould applied
- ▶ Exterior frame and sash are latex primed
- ▶ Exterior wood parts are treated
- ▶ Heavy duty sash lock with Antique Brass finish
- ▶ Brass chains and pulleys
- ▶ A proportionate balance between sash and alloyed weights creates a one-to-one ratio

NOTE: All measurements are nominal.



Brass chains and pulleys



Brass sash locks



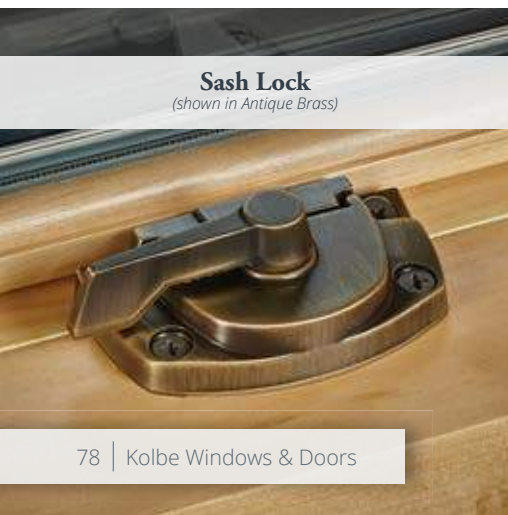
Optional ogee lugs

Hardware

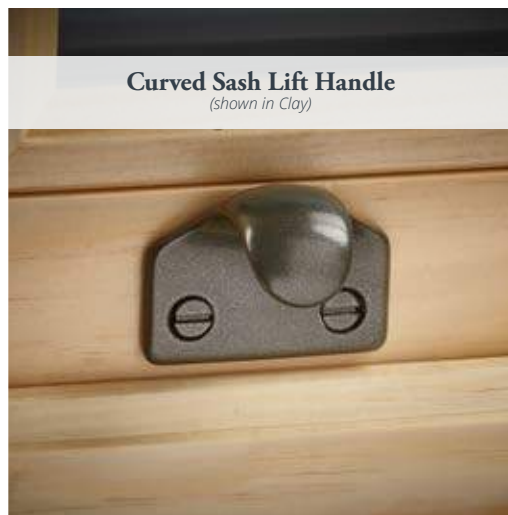
- ▶ Sash lock in Clay (*standard*), White, Beige, Bright Brass, Antique Brass, Satin Nickel, Brushed Chrome[†], Antique Nickel, Rustic Umber, Oil-Rubbed^{*} or Matte Black.
- ▶ Curved, square, or traditional style sash lift handle for ease of use. Available in Clay, White, Beige, Bright Brass, Antique Brass, Satin Nickel, Bright Chrome[†], Brushed Chrome[†], Antique Nickel, Rustic Umber, Oil-Rubbed^{*} or Matte Black.

[†] Brushed Chrome finishes are only available on Signature sash locks and curved sash lift handles.

^{*} The Oil-Rubbed finish is not available on curved sash lift handles. This is a living finish, which means that it will change appearance over time with use.



Sash Lock
(shown in Antique Brass)



Curved Sash Lift Handle
(shown in Clay)



Traditional Style Sash Lift Handle
(shown in Antique Nickel)



Old World Classic Double Hung Options

Glass (pg. 184)

- ▶ LoE-180
- ▶ LoE³-340
- ▶ LoE³-366
- ▶ ThermaPlus™ LoE
- ▶ Neat®
- ▶ Triple pane
- ▶ Tempered or laminated
- ▶ Other options standard to the industry

Divided Lites (pgs. 185-186)

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/8", 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 7/8" or 1-1/8" bars and full surrounds

Screens

- ▶ Half or full screens with BetterVue® or UltraVue® fiberglass screen mesh, or aluminum mesh, and aluminum frames that match the exterior color of the unit

Exterior Finishes (pg. 183)

- ▶ K-Kron II exterior paint finish

NOTE: All measurements are nominal.

Other Options (custom options are also available)

- ▶ Available as single, double or triple hung
- ▶ Other wood species and FSC-certified wood (pg. 182)
- ▶ Interior prefinishing (pg. 182)
- ▶ Interior casing
- ▶ Exterior brickmould and casing (pg. 187)
- ▶ Projected sill nosing, extended sill horns or no sill nosing
- ▶ Ovolo and square profile glazing beads and interior divided lite bars (pgs. 185-186)
- ▶ Prep for stool
- ▶ Ogee lugs integrated into the top sash stiles
- ▶ Oil-Rubbed*, Bright Brass, Polished Nickel and Satin Nickel chains and pulleys
- ▶ Galvanized steel installation clips
- ▶ High performance modifications

NOTE: Customized options to address historical or architectural design elements are available. Please contact your Kolbe dealer.

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

Square Style Sash Lift Handle (shown in Bright Brass)



Replacement Double Hung Sash Kits

Replacement double hung sash kits make updating windows easy. The sash fit into the existing frames using compression jambliners, making installation a snap. Cottage style & reverse cottage style units are available, along with standard and optional features.



Replacement Sash Kits

Updating your project with new, energy-efficient windows that have the convenience of tilt-in sash is easy with Kolbe's double hung replacement sash kits. There are no worries about tearing into walls or ruining specialty mouldings that provide character and charm because sash are made to fit into your existing window frames. Plus, installation is a snap and is done from the interior from any height. Kits are available with Traditional double hung sash, and include spring-loaded, counter balanced jambliners. Both sash open for ventilation, and tilt in or may be removed for easy cleaning. Sash are also available as cottage-style and reverse cottage-style double hungs. Many options, such as exterior finishes, glazing beads and divided lites help to preserve the original design of your home or add a new twist. Standard and optional features for replacement sash are the same as fully framed Traditional sash (see pg. 76-77).

NOTE: The same standard and optional features of Heritage Series Traditional double hung windows apply to replacement sash kits.

Double Hung Replacement Sash Kits Include:




































































































- | | | | |
|-----|--|------|--|
| (1) | Top sash | (8) | Foam pads |
| (2) | PVC jambliners with compression-foam backing | (9) | Screws |
| (3) | Wood head parting stop | (10) | Bottom sash |
| (4) | Vinyl head parting stop | (11) | Energy efficient, insulating LoE ² -270 glass |
| (5) | Tacks | (12) | Heavy duty sash lock |
| (6) | Jambliner clips | (13) | Spring-loaded block-and-tackle mechanical balances <i>(not pictured)</i> |
| (7) | Vinyl sash stops | | |





Double Hungs | Elevation Charts

Sterling & Traditional Double Hungs | Single Units

U.D.	1'-11 7/8"	2'-3 7/8"	2'-7 7/8"	2'-9 7/8"	2'-11 7/8"	3'-1 7/8"	3'-3 7/8"	3'-7 7/8"	3'-11 7/8"
R.O.	1'-10"	2'-2"	2'-6"	2'-8"	2'-10"	3'-0"	3'-2"	3'-6"	3'-10"
S.O.	1'-8"	2'-0"	2'-4"	2'-6"	2'-8"	2'-10"	3'-0"	3'-4"	3'-8"
G.S.	16"	20"	24"	26"	28"	30"	32"	36"	40"
3'-2 1/8"									
3'-6 1/8"									
4'-2 1/8"									
4'-6 1/8"									
4'-10 1/8"									
5'-2 1/8"									
5'-6 1/8"									
5'-10 1/8"									
6'-2 1/8"									
6'-6 1/8"									
6'-10 1/8"									

* Units meet most national emergency escape and rescue requirements.

** Only Traditional sash units meet most national emergency escape and rescue requirements.

U.D. = Unit Dimension

R.O. = Rough Opening

S.O. = Sash Opening

G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.










Single units shown are also available as single hung units and replacement sash kits with Traditional sash only.

Divided lites are optional.

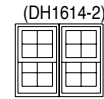
Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

The side jambs of double hung units extend above the head jamb; additional space for the rough opening height may be necessary.

Sterling & Traditional Double Hungs | Cottage-Style

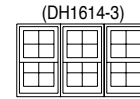
U.D.	1'-11 7/8"	2'-3 7/8"	2'-7 7/8"	2'-9 7/8"	2'-11 7/8"	3'-1 7/8"	3'-3 7/8"	3'-7 7/8"	3'-11 7/8"
R.O.	1'-10"	2'-2"	2'-6"	2'-8"	2'-10"	3'-0"	3'-2"	3'-6"	3'-10"
S.O.	1'-8"	2'-0"	2'-4"	2'-6"	2'-8"	2'-10"	3'-0"	3'-4"	3'-8"
G.S.	16"	20"	24"	26"	28"	30"	32"	36"	40"
5'-10 1/8" 5'-9" 5'-6" 36" 24"									
	DH1624/36	DH2024/36	DH2424/36	DH2624/36	DH2824/36	DH3024/36	DH3224/36	DH3624/36	DH4024/36

Width Dimensions for Twin-Mulled Units



Glass (per-sash)	16"	20"	24"	26"	28"	30"	32"	36"	40"
R.O.	3'-7 1/2"	4'-3 1/2"	4'-11 1/2"	5'-3 1/2"	5'-7 1/2"	5'-11 1/2"	6'-3 1/2"	6'-11 1/2"	7'-7 1/2"
U.D.	3'-9 3/8"	4'-5 3/8"	5'-1 3/8"	5'-5 3/8"	5'-9 3/8"	6'-1 3/8"	6'-5 3/8"	7'-1 3/8"	7'-9 3/8"

Width Dimensions for Triple-Mulled Units



Glass (per-sash)	16"	20"	24"	26"	28"	30"	32"	36"	40"
R.O.	5'-5"	6'-5"	7'-5"	7'-11"	8'-5"	8'-11"	9'-5"	10'-5"	11'-5"
U.D.	5'-6 7/8"	6'-6 7/8"	7'-6 7/8"	8'-0 7/8"	8'-6 7/8"	9'-0 7/8"	9'-6 7/8"	10'-6 7/8"	11'-6 7/8"

U.D. = Unit Dimension • R.O. = Rough Opening
S.O. = Sash Opening • G.S. = Glass Size

NOTE: All measurements are nominal.
Elevation charts are not to scale.

Divided lites are optional.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines.

The side jambs of double hung units extend above the head jamb; additional space for the rough opening height may be necessary. For rough opening recommendations, see pg. 194.

Dimension Calculations

Elevation charts provide wood unit dimensions for units with the standard 1-15/16" brickmould. Below are the calculations to determine the frame size of units with brickmould.

	Width	Height
1-15/16" brickmould; U.D. to F.S.	-2 3/8"	-1 11/16"
3-1/2" flat or profiled casing; U.D. to F.S.	-5 51/2"	-3 1/4"
3-1/2" casing and backband; U.D. to F.S.	-7"	-4 3/16"











































F.S. to S.O.	-1 1/2"	-2 7/16"
S.O. to G.S.	-4"	-6 1/2"
G.S. to D.L.O.	-1"	-1"

Note: Clear opening dimensions can be found on pgs. 196-199.
Cottage-style dimension calculations are different; please contact your dealer.

F.S. = Frame Size • G.S. = Glass Size • O.S.M. = Outside Measurement
D.L.O. = Daylight Opening • U.D. = Unit Dimension

Double Hungs | Elevation Charts

Double Hungs | Rectangular Transoms

U.D.	1'-11 7/8"	2'-3 7/8"	2'-7 7/8"	2'-11 7/8"	3'-3 7/8"	3'-7 7/8"	3'-11 7/8"
R.O.	1'-10"	2'-2"	2'-6"	2'-10"	3'-2"	3'-6"	3'-10"
S.O.	1'-8"	2'-0"	2'-4"	2'-8"	3'-0"	3'-4"	3'-8"
G.S.	16"	20"	24"	28"	32"	36"	40"
1'-1 1/8"							
1'-1 1/8"	DHT1606	DHT2006	DHT2406	DHT2806	DHT3206	DHT3606	DHT4006
1'-5 1/8"							
1'-5 1/8"	DHT1610	DHT2010	DHT2410	DHT2810	DHT3210	DHT3610	DHT4010
1'-7 1/8"							
1'-7 1/8"	DHT1612	DHT2012	DHT2412	DHT2812	DHT3212	DHT3612	DHT4012
1'-9 1/8"							
1'-9 1/8"	DHT1614	DHT2014	DHT2414	DHT2814	DHT3214	DHT3614	DHT4014
2'-1 1/8"							
2'-1 1/8"	DHT1618	DHT2018	DHT2418	DHT2818	DHT3218	DHT3618	DHT4018
2'-7 1/8"							
2'-7 1/8"	DHT1624	DHT2024	DHT2424	DHT2824	DHT3224	DHT3624	DHT4024

U.D. = Unit Dimension • R.O. = Rough Opening • S.O. = Sash Opening • G.S. = Glass Size

NOTE: All measurements are nominal. These dimensions apply only for transoms with flat sills. Contact your supplier for dimensions of units with beveled sills. Elevation charts are not to scale.

Transom units are only available with a 1-3/4" sash. The units shown are stand-alone units. Adjustments may be required when stacking over other units; adjustments will be made in the factory.
































































Divided lites are optional.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

The side jambs of double hung units extend above the head jamb; additional space for the rough opening height may be necessary.

Additional and the most current drawings are available at www.kolbewindows.com.

Double Hungs | Studio Units

U.D.	4'-3 7/8"	4'-7 7/8"	5'-3 7/8"	5'-11 7/8"	6'-7 7/8"	7'-3 7/8"	8'-7 7/8"
R.O.	4'-2"	4'-6"	5'-2"	5'-10"	6'-6"	7'-2"	8'-6"
S.O.	4'-0"	4'-4"	5'-0"	5'-8"	6'-4"	7'-0"	8'-4"
G.S.	44 1/2"	48 1/2"	56 1/2"	64 1/2"	72 1/2"	80 1/2"	96 1/2"
4'-2 1/8"	 DHS40310	 DHS44310	 DHS50310	 DHS58310	 DHS64310	 DHS70310	 DHS84310
4'-6 1/8"	 DHS4042	 DHS4442	 DHS5042	 DHS5842	 DHS6442	 DHS7042	 DHS8442
4'-10 1/8"	 DHS4046	 DHS4446	 DHS5046	 DHS5846	 DHS6446	 DHS7046	 DHS8446
5'-2 1/8"	 DHS40410	 DHS44410	 DHS50410	 DHS58410	 DHS64410	 DHS70410	 DHS84410
5'-6 1/8"	 DHS4052	 DHS4452	 DHS5052	 DHS5852	 DHS6452	 DHS7052	 DHS8452
5'-10 1/8"	 DHS4056	 DHS4456	 DHS5056	 DHS5856	 DHS6456	 DHS7056	 DHS8456
6'-2 1/8"	 DHS40510	 DHS44510	 DHS50510	 DHS58510	 DHS64510	 DHS70510	 DHS84510
6'-6 1/8"	 DHS4062	 DHS4462	 DHS5062	 DHS5862	 DHS6462	 DHS7062	 DHS8462
6'-10 1/8"	 DHS4066	 DHS4466	 DHS5066	 DHS5866	 DHS6466	 DHS7066	 DHS8466

*To match cottage-style double hungs with divided lites, 5'-6" high (S.O.) units must be ordered 5 lites high.

U.D. = Unit Dimension • R.O. = Rough Opening • S.O. = Sash Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

Studio units are only available with a 1-3/4" sash.

Divided lites are optional.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

The side jambs of double hung units extend above the head jamb; additional space for the rough opening height may be necessary.

Additional and the most current drawings are available at www.kolbewindows.com.

Double Hungs | Elevation Charts

Sterling & Traditional Double Hungs | Picture Units 16" flankers

U.D.	8'-2 7/8"	8'-10 7/8"	9'-6 7/8"	10'-2 7/8"
R.O.	8'-1"	8'-9"	9'-5"	10'-1"
S.O.	1'-8" 4'-4" 1'-8"	1'-8" 5'-0" 1'-8"	1'-8" 5'-8" 1'-8"	1'-8" 6'-4" 1'-8"
G.S.*	16" 48 1/2" 16"	16" 56 1/2" 16"	16" 64 1/2" 16"	16" 72 1/2" 16"
4'-6 1/8"				
4'-5"	DH16224442	DH16225042	DH16225842	DH16226442
4'-10 1/8"				
4'-9"	DH16244446	DH16245046	DH16245846	DH16246446
5'-6 1/8"				
5'-5"	DH16284452	DH16285052	DH16285852	DH16286452

Sterling & Traditional Double Hungs | Picture Units 20" flankers

U.D.	8'-10 7/8"	9'-6 7/8"	10'-2 7/8"	10'-10 7/8"
R.O.	8'-9"	9'-5"	10'-1"	10'-9"
S.O.	2'-0" 4'-4" 2'-0"	2'-0" 5'-0" 2'-0"	2'-0" 5'-8" 2'-0"	2'-0" 6'-4" 2'-0"
G.S.*	20" 48 1/2" 20"	20" 56 1/2" 20"	20" 64 1/2" 20"	20" 72 1/2" 20"
4'-6 1/8"				
4'-5"	DH20224442	DH20225042	DH20225842	DH20226442
4'-10 1/8"				
4'-9"	DH20244446	DH20245046	DH20245846	DH20246446
5'-6 1/8"				
5'-5"	DH20284452	DH20285052	DH20285852	DH20286452

*The first number of the glass size height is the height (per sash) for each flanker sash. The second number is the glass height for the center picture unit.

U.D. = Unit Dimension • R.O. = Rough Opening • S.O. = Sash Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

Center picture units are only available with a 1-3/4" sash. Flanker sash must be specified as either Traditional or Sterling sash when ordering.

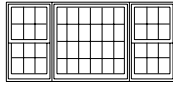
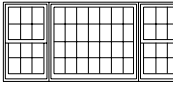
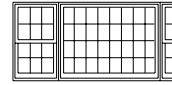
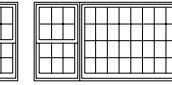
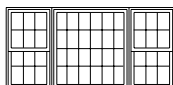



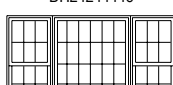
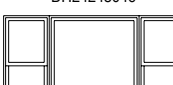


Divided lites are optional.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

The side jambs of double hung units extend above the head jamb; additional space for the rough opening height may be necessary.

Additional and the most current drawings are available at www.kolbewindows.com.

Sterling & Traditional Double Hungs | Picture Units 24" flankers

U.D.	9'-6 7/8"	10'-2 7/8"	10'-10 7/8"	11'-6 7/8"
R.O.	9'-5"	10'-1"	10'-9"	11'-5"
S.O.	2'-4" 4'-4" 2'-4"	2'-4" 5'-0" 2'-4"	2'-4" 5'-8" 2'-4"	2'-4" 6'-4" 2'-4"
G.S.*	24" 48 1/2" 24"	24" 56 1/2" 24"	24" 64 1/2" 24"	24" 72 1/2" 24"
4'-6 1/8"				
4'-5"	DH24224442	DH24225042	DH24225842	DH24226442
4'-2"				
22" 45 1/4"	DH24244446	DH24245046	DH24245846	DH24246446
4'-10 1/8"				
4'-9"	DH24284452	DH24285052	DH24285852	DH24286452
4'-6"				
24" 49 1/4"				
5'-6 1/8"				
5'-5"				
5'-2"				
28" 57 1/4"				

*The first number of the glass size height is the height (per sash) for each flanker sash. The second number is the glass height for the center picture unit.

U.D. = Unit Dimension • R.O. = Rough Opening • S.O. = Sash Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

Center picture units are only available with a 1-3/4" sash. Wood flanker sash must be specified as either Traditional or Sterling sash when ordering.

Divided lites are optional.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

The side jambs of double hung units extend above the head jamb; additional space for the rough opening height may be necessary.

Additional and the most current drawings are available at www.kolbewindows.com.

Double Hungs | Elevation Charts

Sterling & Traditional Double Hungs | 30° Bay Windows

16" flankers 20" flankers

UNIT PROJECTION: 13 3/8"		UNIT PROJECTION: 15 7/16"	
U.D. R.O. S.O. G.S.	8'-2 11/16"	8'-10 11/16"	8'-9 5/8"
	7'-10 15/16"	8'-6 15/16"	8'-5 7/8"
	1'-8" 4'-4" 1'-8"	1'-8" 5'-0" 1'-8"	2'-0" 4'-4" 2'-0"
	16" 48 1/2" 16"	16" 56 1/2" 16"	20" 48 1/2" 20"
4'-6 1/8"			
4'-5 11/16"	DH30-16224442	DH30-16225042	DH30-20224442
4'-2"			
4'-10 1/8"	DH30-16244446	DH30-16245046	DH30-20244446
4'-9 11/16"			
4'-6"			DH30-20245046
24" 49 1/4"			
5'-6 1/8"			
5'-5 11/16"			DH30-20285052
5'-2"			
28" 57 1/4"			

Sterling & Traditional Double Hungs | 45° Bay Windows

16" flankers 20" flankers

UNIT PROJECTION: 18 13/16"		UNIT PROJECTION: 21 11/16"	
U.D. R.O. S.O. G.S.	7'-9 11/16"	8'-5 11/16"	8'-3 3/16"
	7'-4 3/4"	8'-0 3/4"	7'-10 3/8"
	1'-8" 4'-4" 1'-8"	1'-8" 5'-0" 1'-8"	2'-0" 4'-4" 2'-0"
	16" 48 1/2" 16"	16" 56 1/2" 16"	20" 48 1/2" 20"
4'-6 1/8"			
4'-5 11/16"	DH45-16224442	DH45-16225042	DH45-20225042
4'-2"			
4'-10 1/8"	DH45-16244446	DH45-16245046	DH45-20244446
4'-9 11/16"			
4'-6"			DH45-20245046
24" 49 1/4"			
5'-6 1/8"			
5'-5 11/16"			DH45-20285052
5'-2"			
28" 57 1/4"			

*The first number of the glass size height is the height (per sash) for each flanker sash. The second number is the glass height for the center picture unit.

U.D. = Unit Dimension • R.O. = Rough Opening • S.O. = Sash Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

Center picture units are only available with a 1-3/4" sash. Flanker sash must be specified as either Traditional or Sterling sash when ordering.

Divided lites are optional.




































































































If the cable support system and/or insulated platforms & support brackets are not being used, other means of proper support must be used. Add 1-13/16" to the R.O. height if an insulated platform is being used. R.O.'s for bay units without head and seat boards, typically used for walk-out applications, are different.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

The side jambs of double hung units extend above the head jamb; additional space for the rough opening height may be necessary.

Additional and the most current drawings are available at www.kolbewindows.com.

Sterling & Traditional Segment Head Double Hungs

U.D.	1'-11 7/8"	2'-3 7/8"	2'-7 7/8"	2'-9 7/8"	2'-11 7/8"	3'-1 7/8"	3'-3 7/8"	3'-7 7/8"	3'-11 7/8"
R.O.	1'-10"	2'-2"	2'-6"	2'-8"	2'-10"	3'-0"	3'-2"	3'-6"	3'-10"
S.O.	1'-8"	2'-0"	2'-4"	2'-6"	2'-8"	2'-10"	3'-0"	3'-4"	3'-8"
G.S.	16"	20"	24"	26"	28"	30"	32"	36"	40"
3'-2 1/8"									
3'-6 1/8"									
4'-2 1/8"									
4'-6 1/8"									
4'-10 1/8"									
5'-2 1/8"									
5'-6 1/8"									
5'-10 1/8"									
6'-2 1/8"									
6'-6 1/8"									
6'-10 1/8"									

*Approximate glass sizes per sash are given; true glass sizes vary depending on the radius involved.

U.D. = Unit Dimension • R.O. = Rough Opening • S.O. = Sash Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

The venting of the bottom sash of segment head units is limited due to the radius on the top sash.

Divided lites are optional.


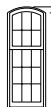



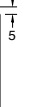


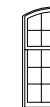
Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

The side jambs of double hung units extend above the head jamb; additional space for the rough opening height may be necessary.

Additional and the most current drawings are available at www.kolbewindows.com.

Double Hungs | Elevation Charts






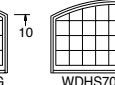


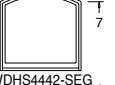
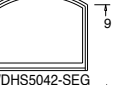
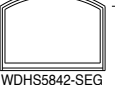


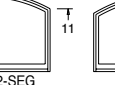





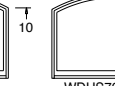




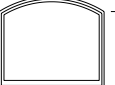

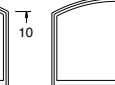
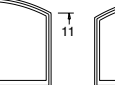

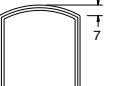

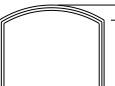

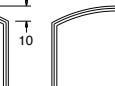
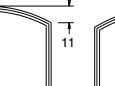
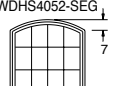
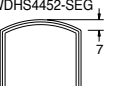



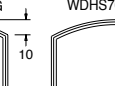


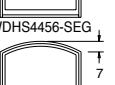



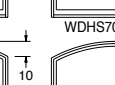

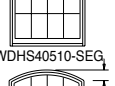


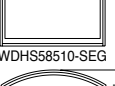








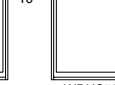

Sterling & Traditional Segment Head Double Hungs | Cottage Style

U.D.	1'-11 7/8"	2'-3 7/8"	2'-7 7/8"	2'-9 7/8"	2'-11 7/8"	3'-1 7/8"	3'-3 7/8"	3'-7 7/8"	3'-11 7/8"
R.O.	1'-10"	2'-2"	2'-6"	2'-8"	2'-10"	3'-0"	3'-2"	3'-6"	3'-10"
S.O.	1'-8"	2'-0"	2'-4"	2'-6"	2'-8"	2'-10"	3'-0"	3'-4"	3'-8"
G.S.*	16"	20"	24"	26"	28"	30"	32"	36"	40"
5'-10 7/8"									
	WDH1624/36-SEG	WDH2024/36-SEG	WDH2424/36-SEG	WDH2624/36-SEG	WDH2824/36-SEG	WDH3024/36-SEG	WDH3224/36-SEG	WDH3624/36-SEG	WDH4024/36-SEG

*Approximate glass sizes per sash are given; true glass sizes vary depending on the radius involved.
 U.D. = Unit Dimension • R.O. = Rough Opening • S.O. = Sash Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.
 The venting of the bottom sash of segment head units is limited due to the radius on the top sash.
 Divided lites are optional.
 Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.
 The side jambs of double hung units extend above the head jamb; additional space for the rough opening height may be necessary.
 Additional and the most current drawings are available at www.kolbewindows.com.

Segment Head Double Hungs | Studio Units

U.D.	4'-3 7/8"	4'-7 7/8"	5'-3 7/8"	5'-11 7/8"	6'-7 7/8"	7'-3 7/8"	8'-7 7/8"
R.O.	4'-2"	4'-6"	5'-2"	5'-10"	6'-6"	7'-2"	8'-6"
S.O.	4'-0"	4'-4"	5'-0"	5'-8"	6'-4"	7'-0"	8'-4"
G.S.*	44 1/2"	48 1/2"	56 1/2"	64 1/2"	72 1/2"	80 1/2"	96 1/2"
4'-2 1/8"							
4'-6 1/8"							
4'-10 1/8"							
5'-2 1/8"							
5'-6 1/8"							
5'-10 1/8"							
6'-2 1/8"							
6'-6 1/8"							
6'-10 1/8"							

*Approximate glass sizes per sash are given; true glass sizes vary depending on the radius involved.

U.D. = Unit Dimension • R.O. = Rough Opening • S.O. = Sash Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

Studio units are only available with a 1-3/4" sash.

Divide lites are optional.



































































































Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

The side jambs of double hung units extend above the head jamb; additional space for the rough opening height may be necessary.

Additional and the most current drawings are available at www.kolbewindows.com.

Double Hungs | Elevation Charts

Sterling & Traditional Half-Circle Top Single Hungs

U.D.	1'-11 7/8"	2'-3 7/8"	2'-7 7/8"	2'-9 7/8"	2'-11 7/8"	3'-1 7/8"	3'-3 7/8"	3'-7 7/8"	3'-11 7/8"
R.O.	1'-10"	2'-2"	2'-6"	2'-8"	2'-10"	3'-0"	3'-2"	3'-6"	3'-10"
S.O.	1'-8"	2'-0"	2'-4"	2'-6"	2'-8"	2'-10"	3'-0"	3'-4"	3'-8"
G.S.	16"	20"	24"	26"	28"	30"	32"	36"	40"
3'-2 3/16"									
3'-5 1/16"									
3'-8 3/16"									
4'-2 3/16"									
4'-6 3/16"									
4'-10 3/16"									
5'-2 3/16"									
5'-6 3/16"									
5'-10 3/16"									
6'-2 3/16"									
6'-6 3/16"									
6'-10 3/16"									

*Approximate glass sizes per sash are given; true glass sizes vary depending on the radius involved.

U.D. = Unit Dimension • R.O. = Rough Opening • S.O. = Sash Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

The venting of the bottom sash of half-circle top units is limited due to the radius on the top sash.









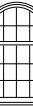
Divided lites are optional.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

The side jambs of double hung units extend above the head jamb; additional space for the rough opening height may be necessary.

Additional and the most current drawings are available at www.kolbewindows.com.

Sterling & Traditional Half-Circle Top Single Hungs | Cottage-Style

U.D.	1'-11 7/8"	2'-3 7/8"	2'-7 7/8"	2'-9 7/8"	2'-11 7/8"	3'-1 7/8"	3'-3 7/8"	3'-7 7/8"	3'-11 7/8"
R.O.	1'-10"	2'-2"	2'-6"	2'-8"	2'-10"	3'-0"	3'-2"	3'-6"	3'-10"
S.O.	1'-8"	2'-0"	2'-4"	2'-6"	2'-8"	2'-10"	3'-0"	3'-4"	3'-8"
G.S.*	16"	20"	24"	26"	28"	30"	32"	36"	40"
5'-10 3/16" 5'-9 1/16" 5'-6" 36" 24"									
	WDH1624/36-HC	WDH2024/36-HC	WDH2424/36-HC	WDH2624/36-HC	WDH2824/36-HC	WDH3024/36-HC	WDH3224/36-HC	WDH3624/36-HC	WDH4024/36-HC

*Approximate glass sizes per sash are given; true glass sizes vary depending on the radius involved.

U.D. = Unit Dimension • R.O. = Rough Opening • S.O. = Sash Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

The venting of the bottom sash of half-circle top units is limited due to the radius on the top sash.

Divided lites are optional.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

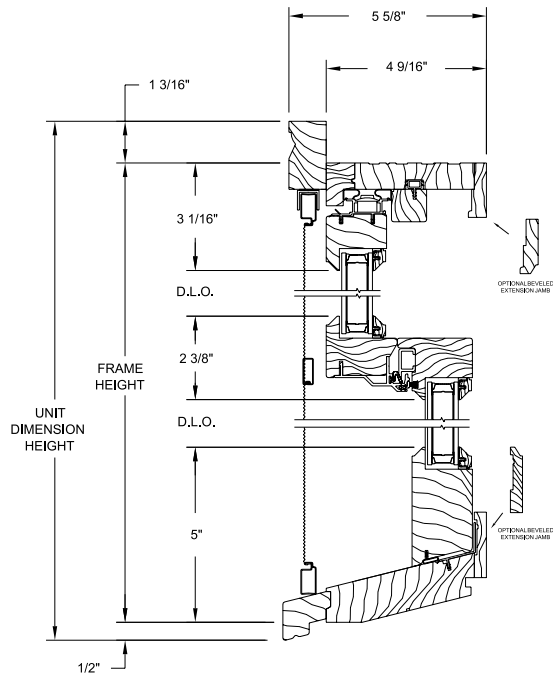
The side jambs of double hung units extend above the head jamb; additional space for the rough opening height may be necessary.

Additional and the most current drawings are available at www.kolbewindows.com.

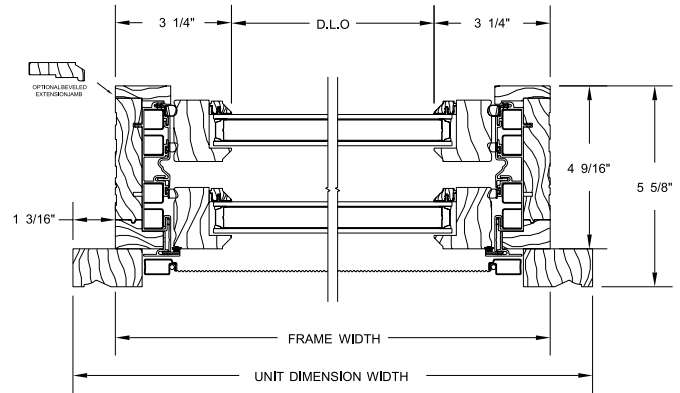
Double Hungs | Cross Section Drawings

Sterling Double Hung

Vertical Section

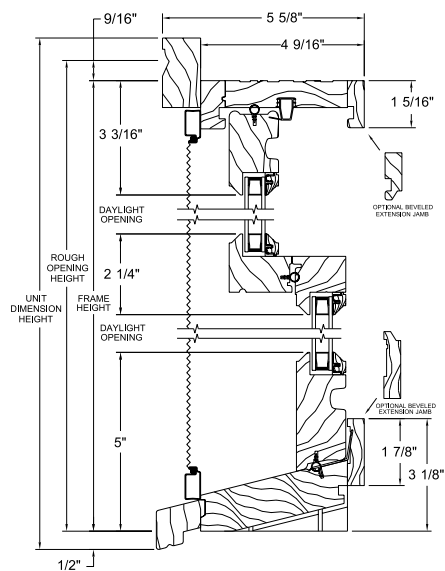


Horizontal Section

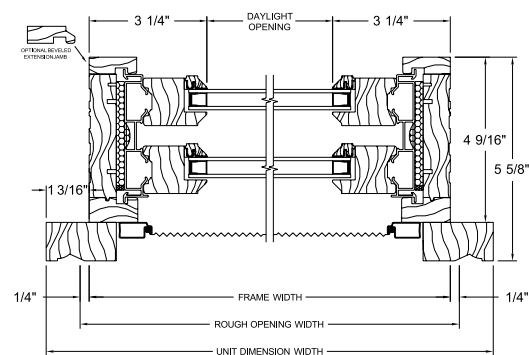


Traditional Double Hung

Vertical Section



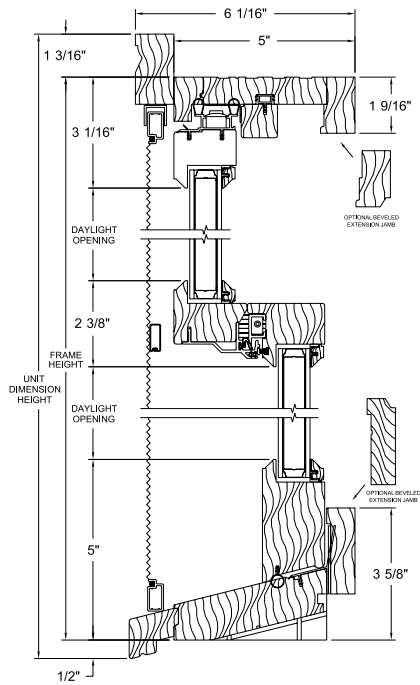
Horizontal Section



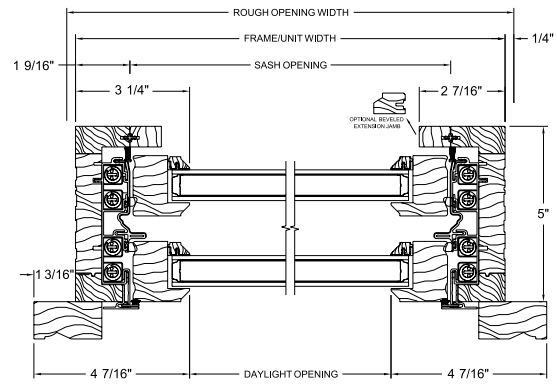
NOTE: Drawings are not to scale. Additional and the most current drawings are available at www.kolbewindows.com.

XL Sterling Double Hung

Vertical Section



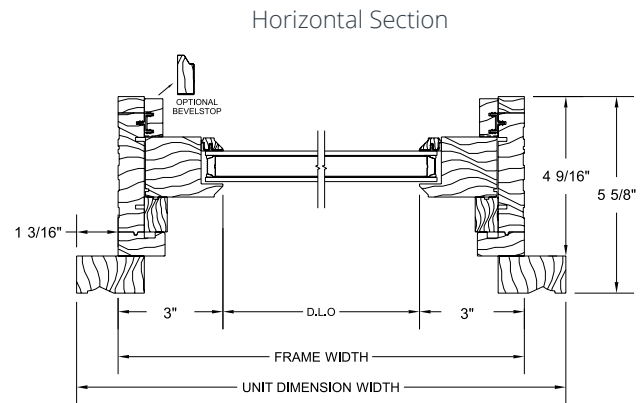
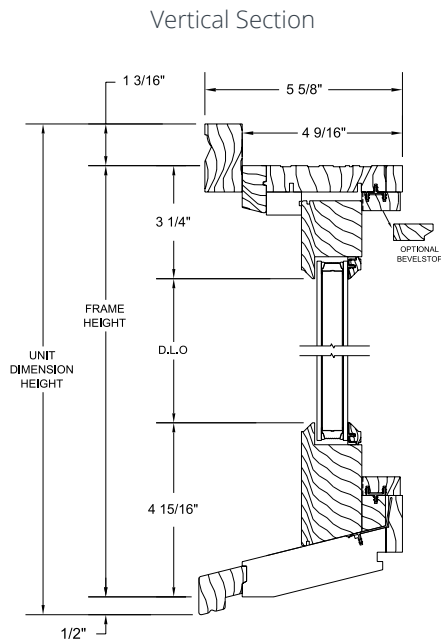
Horizontal Section



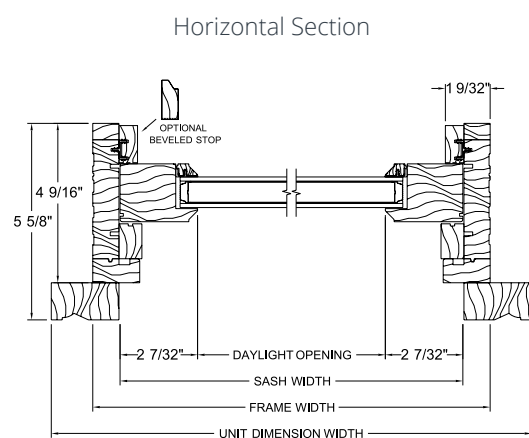
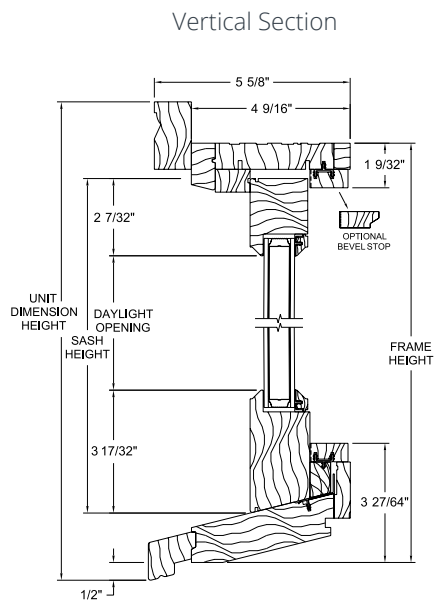
NOTE: Drawings are not to scale. Additional and the most current drawings are available at www.kolbewindows.com.

Double Hungs | Cross Section Drawings

Sterling Double Hung Studio Unit

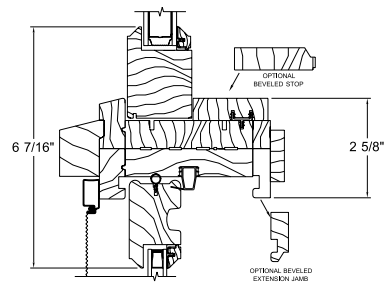


Traditional Double Hung Studio Unit

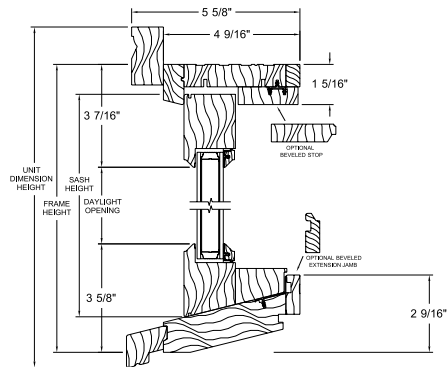


NOTE: Drawings are not to scale. Additional and the most current drawings are available at www.kolbewindows.com.

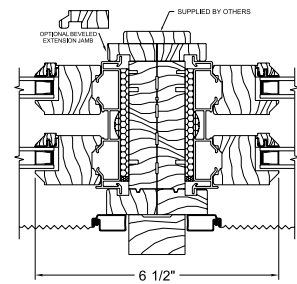
Rectangular Transom Stacked Over Traditional Double Hung



Double Hung Transom with Optional Beveled Sill

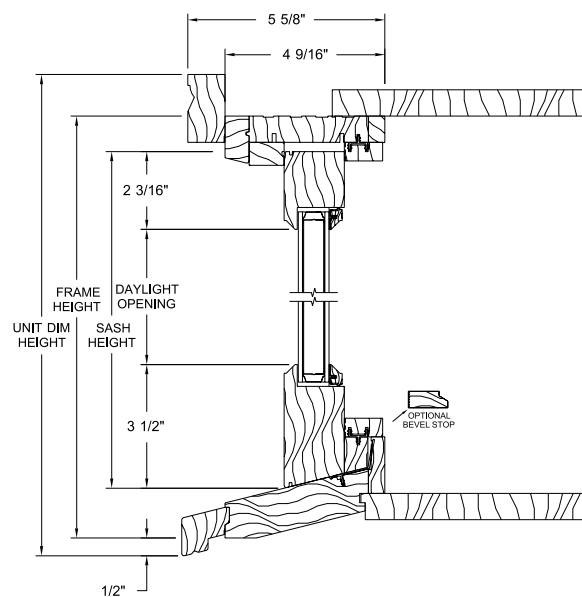


Standard Narrow Mullion



Traditional Double Hung 30° & 45° Bay Window

Vertical Section

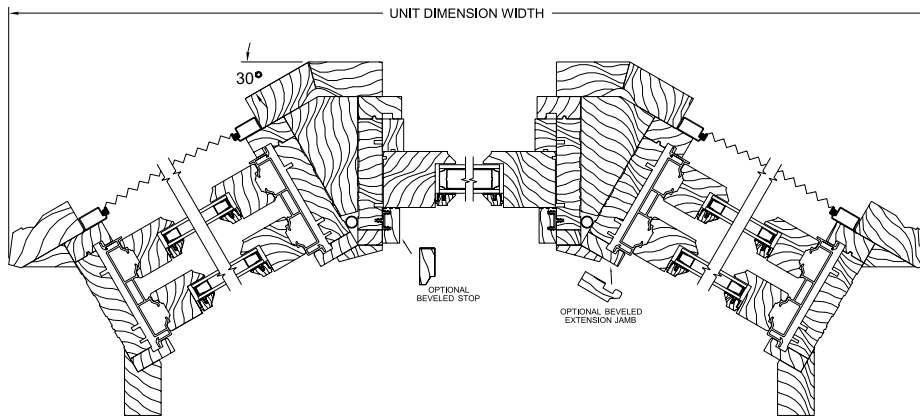


NOTE: Drawings are not to scale. Additional and the most current drawings are available at www.kolbewindows.com.

Double Hungs | Cross Section Drawings

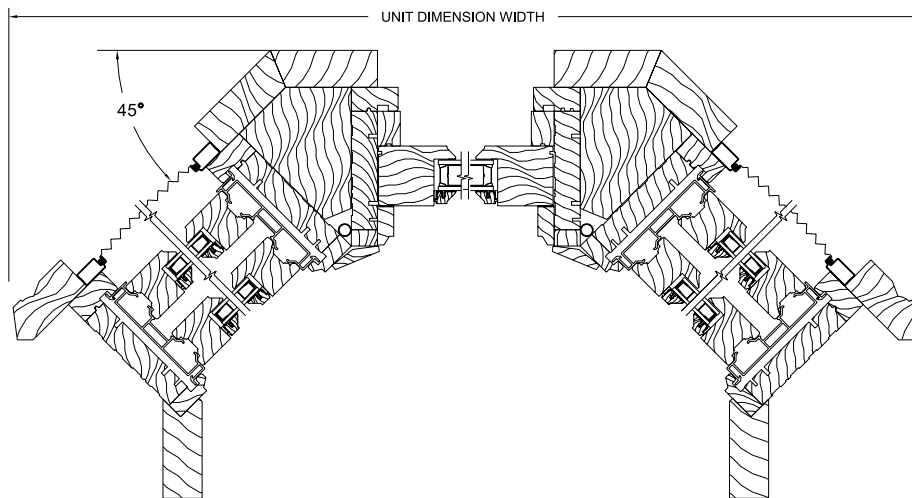
Traditional Double Hung 30° Bay Window

Horizontal Section



Traditional Double Hung 45° Bay Window

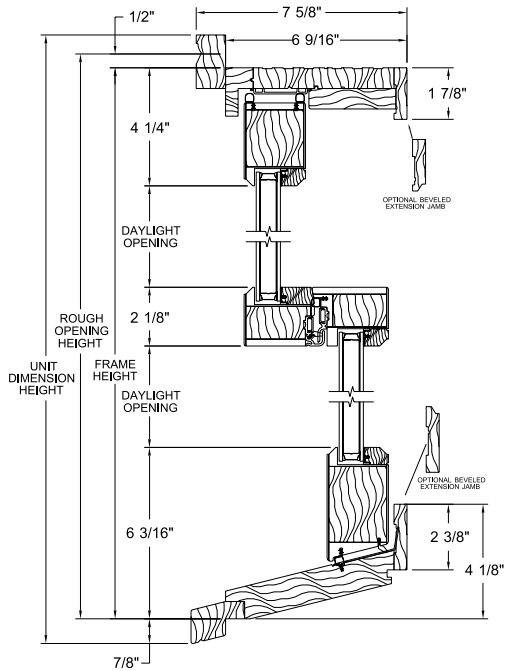
Horizontal Section



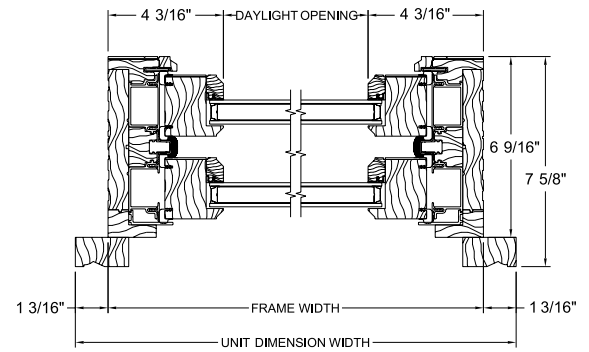
NOTE: Drawings are not to scale. Additional and the most current drawings are available at www.kolbewindows.com.

Majesta Double Hung Dual Pane

Vertical Section

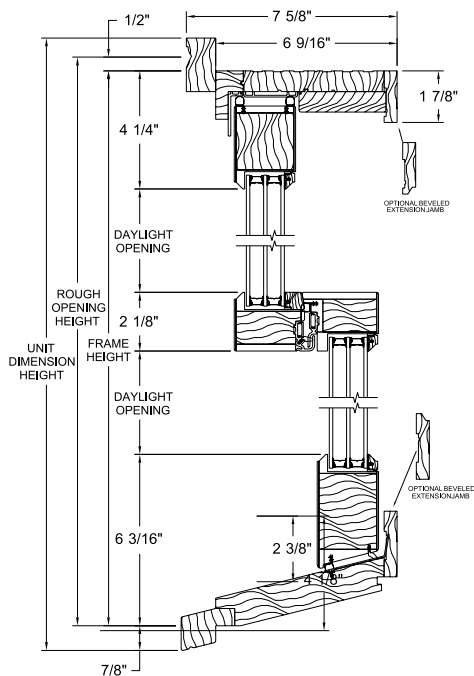


Horizontal Section

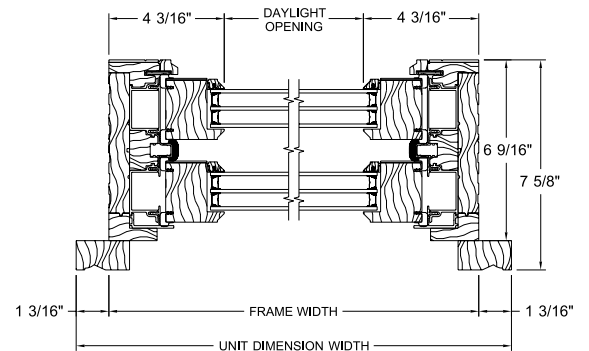


Majesta Double Hung Triple Pane

Vertical Section



Horizontal Section

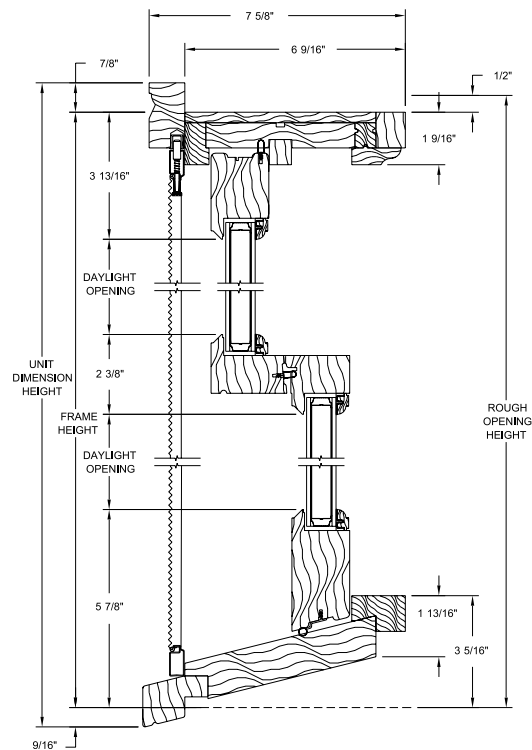


NOTE: There are no standard sizes for Majesta double hungs. Drawings are not to scale. Additional and the most current drawings are available at www.kolbewindows.com.

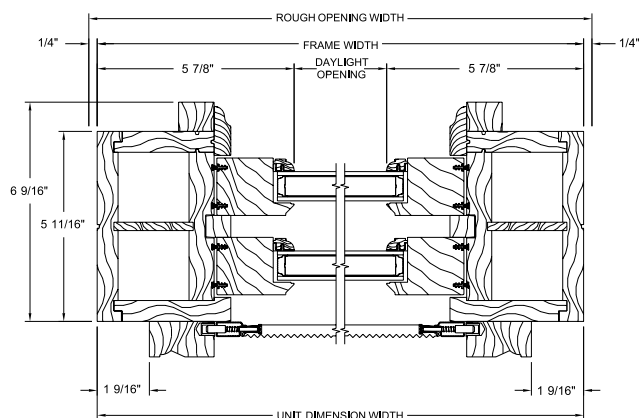
Double Hungs | Cross Section Drawings

Old World Classic Double Hung

Vertical Section



Horizontal Section



NOTE: There are no standard sizes for Old World Classic double hungs. Drawings are not to scale. Additional and the most current drawings are available at www.kolbewindows.com.



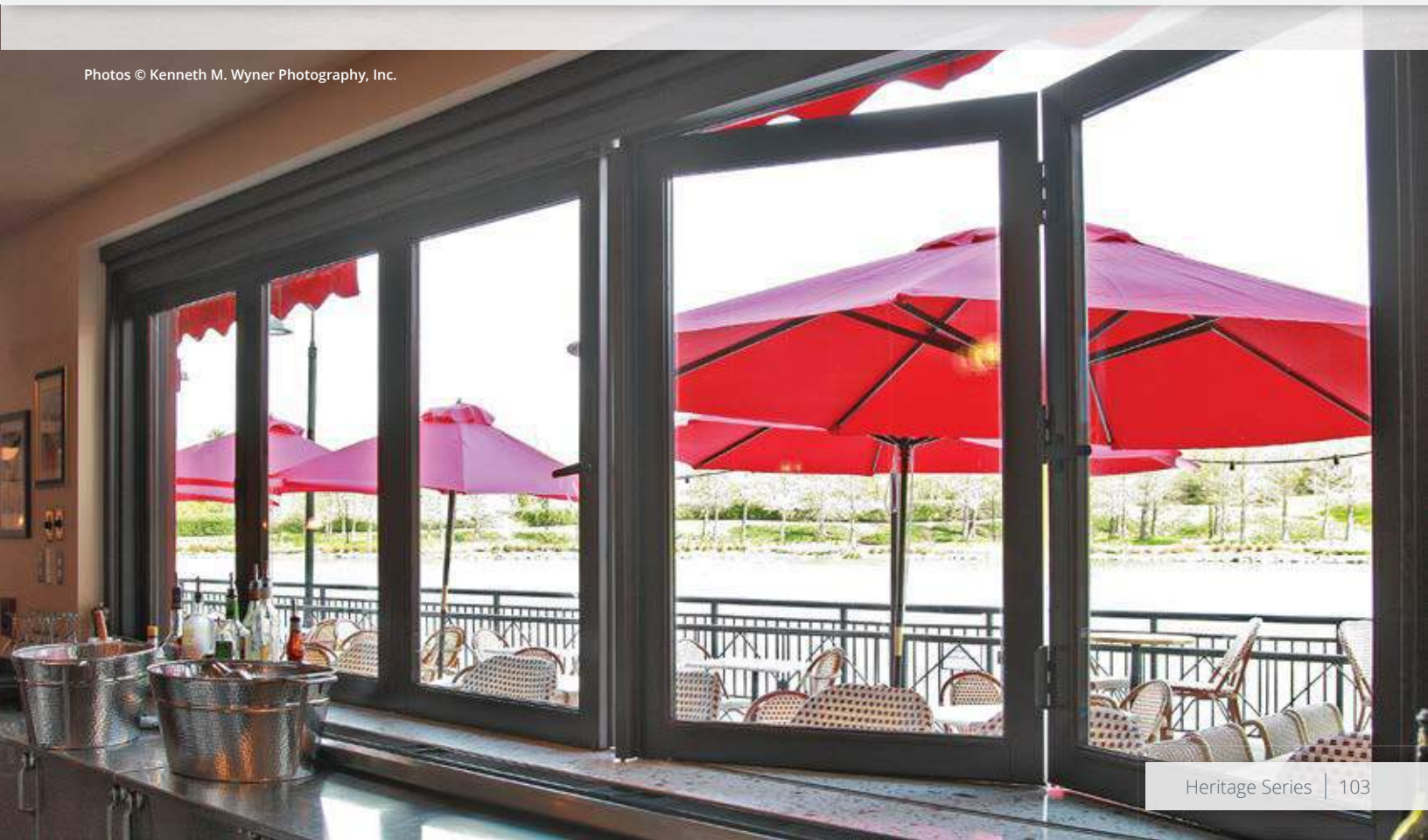




Folding Windows

Kolbe is well known in the window and door industry for innovative products. Folding windows are a perfect example, made for projects requiring a pass-through serving system. For indoor/outdoor living areas and restaurants, Kolbe's folding windows offer a large, unobstructed view of the landscape, and are highly customizable with numerous hardware and finish options.

Photos © Kenneth M. Wyner Photography, Inc.



Folding Windows

Folding windows can infuse a room with a remarkable amount of fresh air by offering openings up to 52 feet. With up to eight panels per side, folding windows are highly customizable with a number of different configurations available.



Photos © Kenneth M. Wyner Photography, Inc.

Folding Window Standard Features

- ▶ 1-3/4" thick sash
- ▶ 6-9/16" minimum jamb width
- ▶ Folding windows feature LVL locking stiles; stiles and rails are a nominal 3" wide
- ▶ Frame setup up to 177" wide x 77-1/8" tall; all others knocked down
- ▶ Constructed of pine with pine interior stops
- ▶ 1-15/16" exterior brickmould applied
- ▶ Exterior wood parts are treated
- ▶ Exterior frame is latex primed
- ▶ Energy efficient, insulating LoE²-270 glass
- ▶ Glazed to the interior with beveled wood glazing beads
- ▶ Bronze weep sill
- ▶ Grooved guide rollers with adjustable, ball-bearing wheels carry the folding panels
- ▶ Multi-point* mortise latch with handle set in a Bright Brass finish
- ▶ Face-mounted flush bolt locking hardware on folding panels
- ▶ Thick oak interior threshold

NOTE: All measurements are nominal.

Minimum panel height is 36", minimum panel width is 16", maximum panel height is 72" and maximum panel width is 39-3/8".

* Minimum panel height for multi-point hardware is 36".

Hardware

- ▶ Face-mounted flush bolt locking hardware on folding panels if a handle is not desired. Available in Matte Black, Bright Brass, Chrome and Satin Nickel.
- ▶ Uno[†] or Aria handle set for folding panels with concealed shootbolt locking hardware. Available in Matte Black, Brushed Chrome, Bright Brass and Chrome.
- ▶ Hinges with handles in Bright Brass, Chrome, Satin Nickel and Matte Black.
- ▶ Finger pulls for panels without hinge handles in Bright Brass, Chrome, Satin Nickel and Matte Black.
- ▶ For units with a swinging panel, choose a Toronto, München, Verona or Dallas^{††} handle set. Available in Bright Brass PVD, Antique Brass, Satin Nickel PVD, Antique Nickel PVD, Oil-Rubbed^{**}, Rustic Umber, Matte Black and Smoky Gray PVD (pgs. 136-137).
- ▶ For units with a swinging panel, choose a Baldwin[®] handle set in Bright Brass, Antique Brass, Satin Brass, Satin Nickel, Antique Nickel, Distressed Smoky Gray, Rustic Umber, Oil Rubbed^{**}, Matte Black or Brushed Chrome finishes (pg. 138).
- ▶ Magnetic latches or panel stays are available to assist in keeping windows stationary while open.

[†] Uno handle set is only available in Brushed Chrome and Matte Black.

^{††} Dallas handle set is only available in Bright Brass PVD, Satin Nickel PVD, Matte Black, Rustic Umber and Smoky Gray PVD.

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

Flush Bolt (shown in Satin Nickel)

Concealed Shoot Bolt

Uno[†] Handle

(shown in Matte Black)

Aria Handle

(shown in Chrome)



Folding Window Options

Glass (pg. 184)

- ▶ LoE-180
- ▶ LoE³-340
- ▶ LoE³-366
- ▶ ThermaPlus™ LoE
- ▶ Neat®
- ▶ Triple pane
- ▶ Tempered or laminated
- ▶ Other options standard to the industry

Divided Lites (pgs. 185-186)

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/8", 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 7/8" or 1-1/8" bars and full surrounds

Screens

- ▶ Black pleated retractable insect screens
- ▶ Black pleated sliding screens only available on units with the frame setup

Exterior Finishes (pg. 183)

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

NOTE: All measurements are nominal.

Other Options (custom options are also available)

- ▶ Stile and top rail options: 4-5/8" or 6"
- ▶ Bottom rail options: 4-5/8", 6", 7-9/16" or 12-5/8"
- ▶ 2-1/4" thick panel
- ▶ Other wood species and FSC-certified wood (pg. 182)
- ▶ Interior prefinishing (pg. 182)
- ▶ Interior casing
- ▶ Exterior brickmould and casing (pg. 187)
- ▶ Ovolo and square profile glazing beads and interior divided lite bars (pgs. 185-186)
- ▶ Single-point hardware for access panel
- ▶ Toronto, Verona, Dallas or München handle set for access panel (pgs. 136-137)
- ▶ Baldwin® handle sets in various styles (pg. 138)
- ▶ Concealed shootbolt locking hardware for folding panels
- ▶ Recessed floor track sill (interior), weep or non-weep in Bronze Anodized finish
- ▶ Weep sill, Clear Anodized finish
- ▶ Extension jambs in a wide variety of sizes (shipped loose for field application if over 12")
- ▶ Galvanized steel installation clips

Hinge Handle
(shown in Matte Black)



Finger Pull
(shown in Satin Nickel)



Magnetic Latch

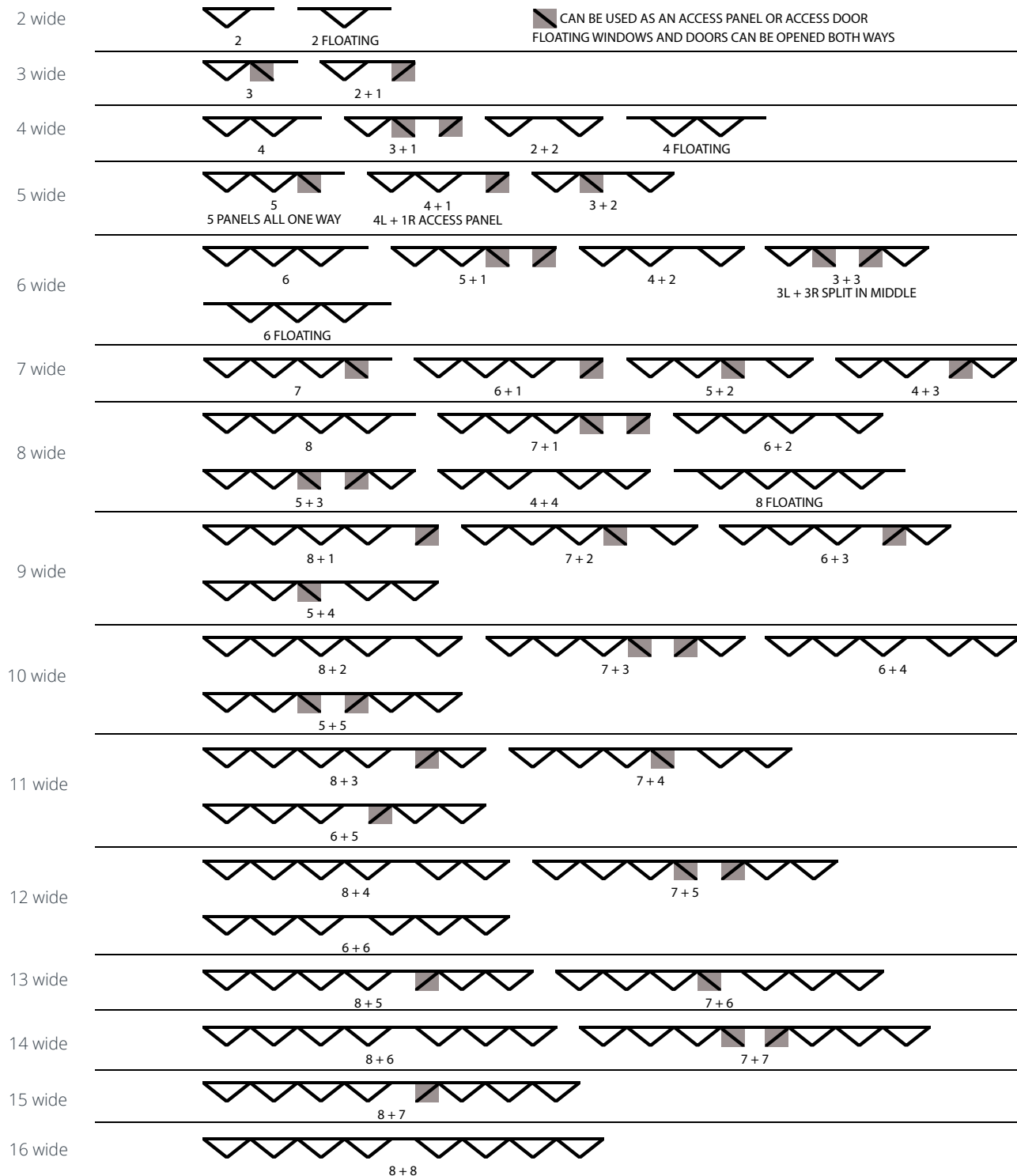


Panel Stay



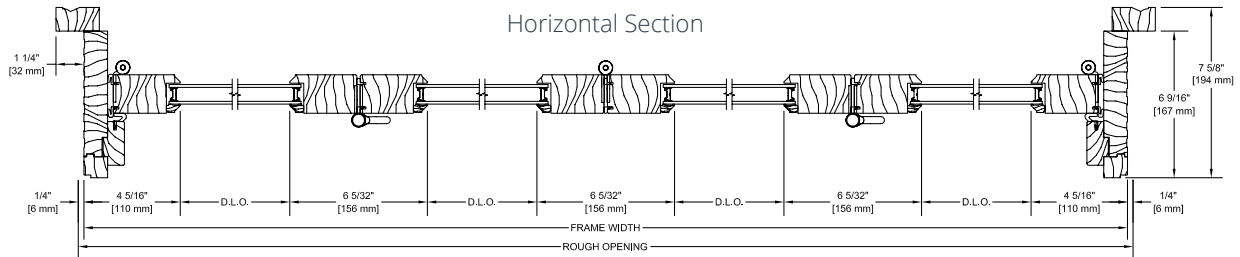
Hinge color options for folding windows include Bright Brass, Chrome, Satin Nickel and Matte Black.

Folding Windows Panel Configurations

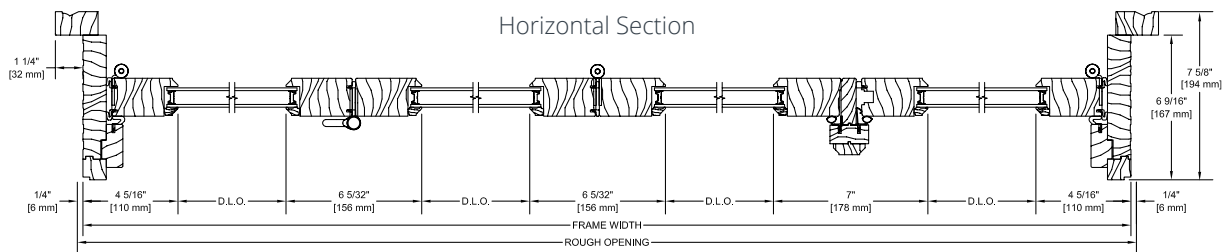


Folding Windows Cross Section Drawings

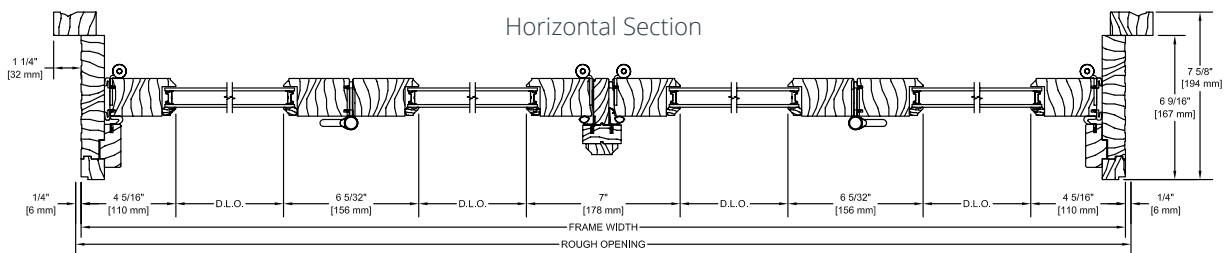
4-Wide: Folding 1-Way



4-Wide: One Left & Three Right



4-Wide: Two Left & Two Right



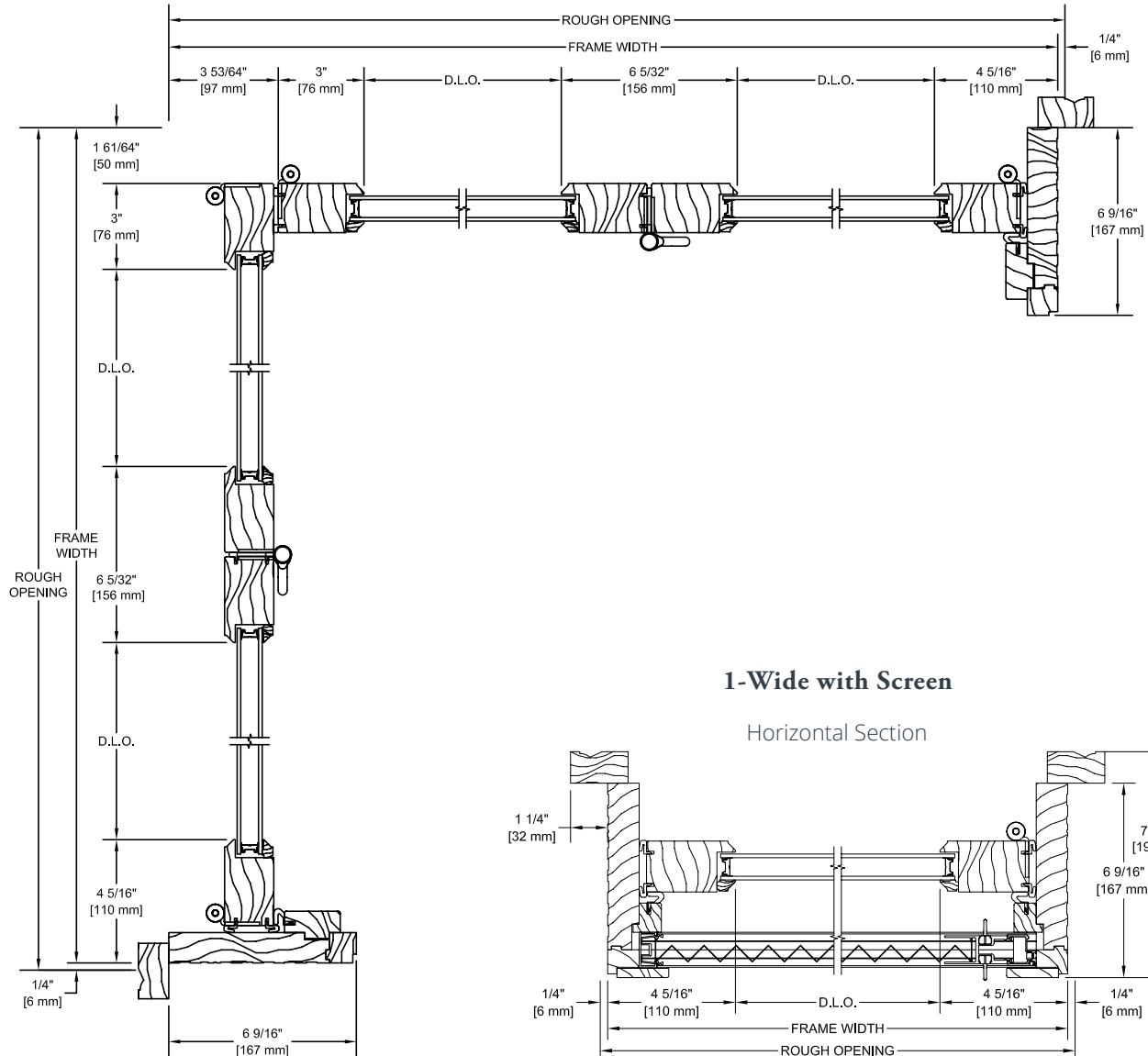
Operation is viewed from the exterior.

NOTE: Drawings are not to scale. Additional and the most current drawings are available at www.kolbewindows.com.

Folding Windows Cross Section Drawings

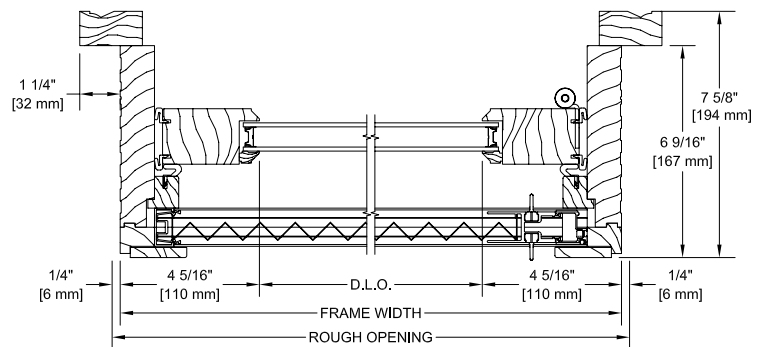
Corner Unit

Horizontal Section



1-Wide with Screen

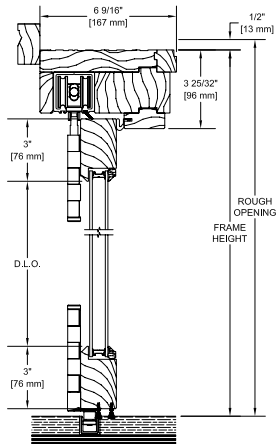
Horizontal Section



NOTE: Drawings are not to scale. Corner unit cross section will change when an odd number of panels are used. Additional and the most current drawings are available at www.kolbewindows.com.

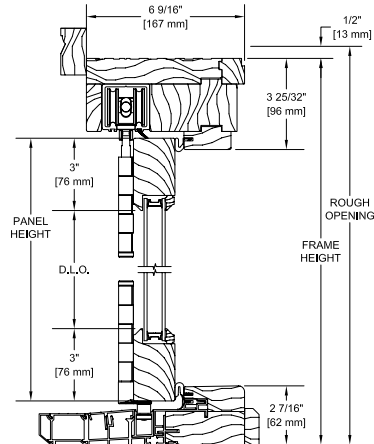
1.75 Panel with Recessed Sill

Vertical Section



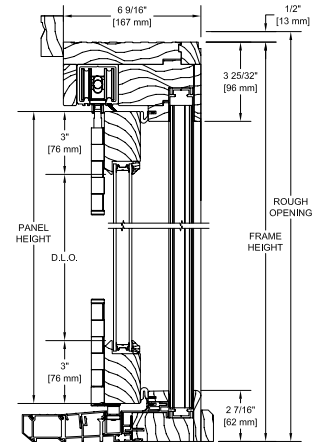
1.75 Panel with Weep Sill

Vertical Section



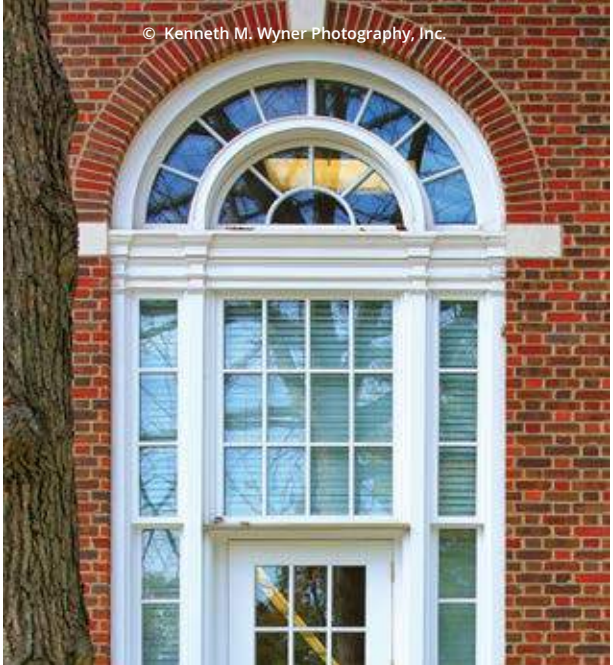
1.75 Panel with Weep Sill and Screen

Vertical Section



NOTE: Drawings are not to scale. Additional and the most current drawings are available at www.kolbewindows.com.





Specialty Windows

Heritage Series offers a variety of specialty window sizes and styles. Add radius or geometric units to other windows and doors to make that final dramatic statement to your design. To achieve a unique look, choose Kolbe's radius windows. Half-circle or elliptical units stacked above other Kolbe windows and doors create gracious curves and allow more light to enter your room. Make your design truly distinctive with Kolbe's geometric windows. Any combination will provide a light-filled room and a terrific view. Comprise a window wall with a variety of triangles, trapezoids, parallelograms, octagons, pentagons, diamonds, hexagons or any shape you can imagine to create a unique space that is sure to be eye-catching.

Radius Windows | Geometric Windows

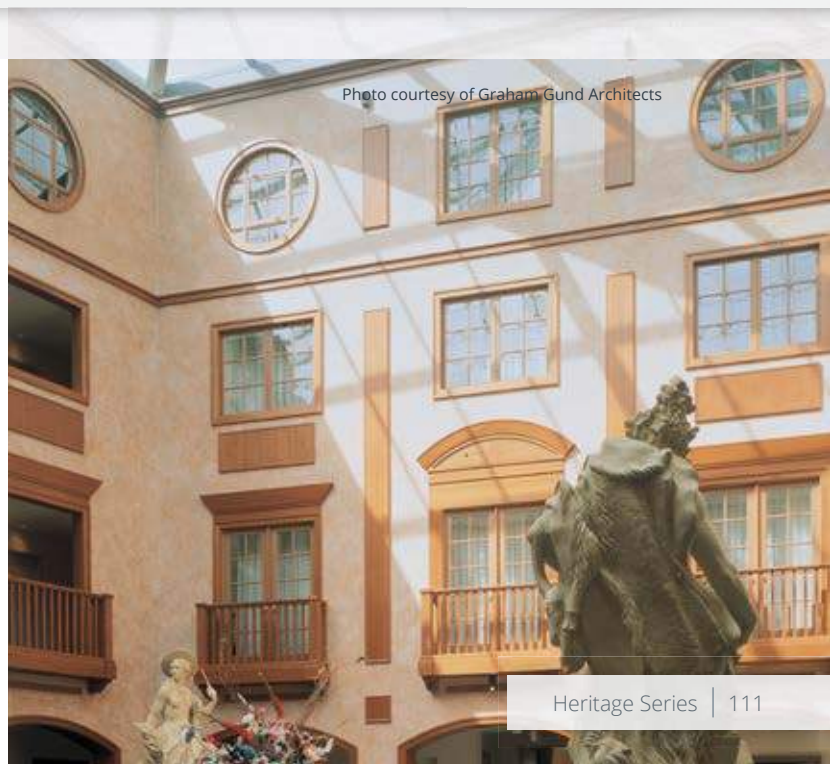


Photo courtesy of Graham Gund Architects

Radius Windows

Kolbe makes radius windows in stand-alone full circles, half-circles, quarter-circles, elliptical, ovals and custom shapes. Half-circle or elliptical windows can be stacked over other Kolbe windows and doors to create larger window walls. We build our radius windows to order so that their profiles match those of the windows they complement.



Radius Window Standard Features

- ▶ 1-3/4" thick sash
- ▶ Overall jamb width is 4-9/16"
- ▶ 3" straight legs on half-circles
- ▶ Constructed of pine, with pine interior stops and wood mull casings on mullied units
- ▶ 1-15/16" exterior brickmould applied
- ▶ Exterior wood parts are treated
- ▶ Exterior frame and sash are latex primed
- ▶ Available in sash and direct set styles
- ▶ Energy efficient, insulating LoE²-270 glass
- ▶ Glazing is sash set to the interior with beveled wood glazing beads

NOTE: All measurements are nominal.





Photo courtesy of Zaveta Construction Company

Radius Window Options

Glass (pg. 184)

- ▶ LoE-180
- ▶ LoE³-340
- ▶ LoE³-366
- ▶ ThermaPlus™ LoE
- ▶ Neat®
- ▶ Triple pane
- ▶ Tempered or laminated
- ▶ Other options standard to the industry

Divided Lites (pgs. 185-186)

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/8", 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 7/8" or 1-1/8" bars and full surrounds

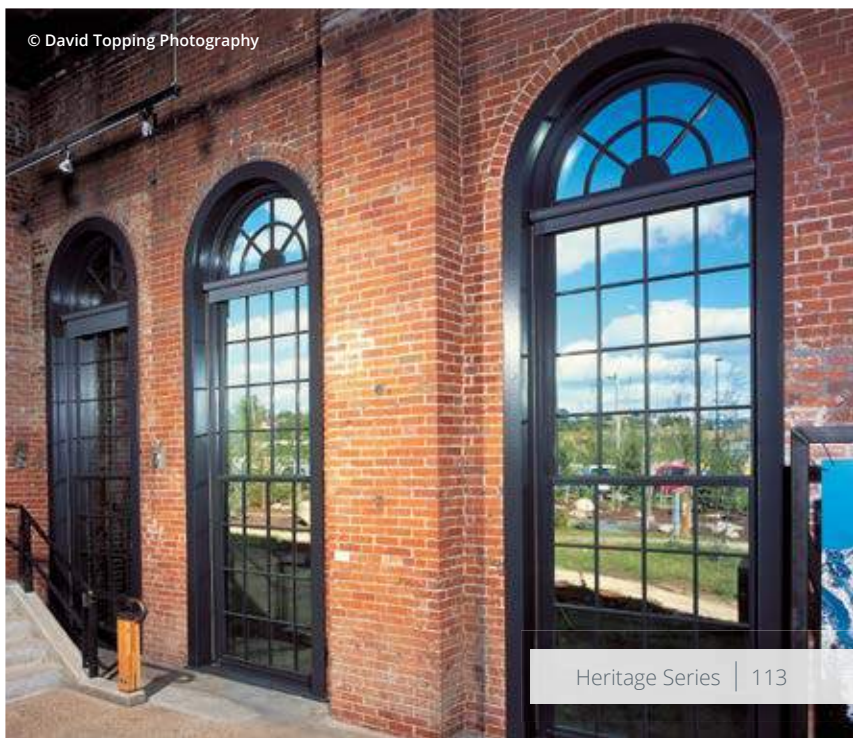
Exterior Finishes (pg. 183)

- ▶ K-Kron II exterior paint finish

NOTE: All measurements are nominal.

Other Options (custom options are also available)

- ▶ Custom shapes such as bell-tops and gothic-tops
- ▶ Other wood species and FSC-certified wood (pg. 182)
- ▶ Interior prefinishing (pg. 182)
- ▶ Interior casing
- ▶ Exterior brickmould and casing (pg. 187)
- ▶ Ovolo and square profile glazing beads and interior divided lite bars (pgs. 185-186)
- ▶ Glazing may be direct set
- ▶ Extended legs or no legs on half-circles
- ▶ Extension jambs (up to 12" applied; over 12" shipped loose for field application)
- ▶ Galvanized steel installation clips
- ▶ High performance modifications



© David Topping Photography

Geometric Windows

Make your design truly distinctive with Kolbe's geometric windows. Any combination will provide a light-filled room and a terrific view. Angled for interest, geometric windows are attention-grabbers. Kolbe can produce a nearly infinite variety of window shapes and sizes, with a vast array of glazing options.



Geometric Window 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 mullied units
- ▶ 1-15/16" exterior brickmould applied
- ▶ Exterior wood parts are treated
- ▶ Exterior frame and sash are latex primed
- ▶ Energy efficient, insulating LoE²-270 glass
- ▶ Available in sash and direct set styles
- ▶ Glazing is sash set to the interior with beveled wood glazing beads
- ▶ Standard geometric shapes include triangles, octagons, hexagons, pentagons, trapezoids, and diamonds

NOTE: All measurements are nominal.





Geometric Window Options

Glass (pg. 184)

- ▶ LoE-180
- ▶ LoE³-340
- ▶ LoE³-366
- ▶ ThermaPlus™ LoE
- ▶ Neat®
- ▶ Triple pane
- ▶ Patterned-, bronze-, or gray-lite
- ▶ Tempered or laminated
- ▶ Other options standard to the industry

Divided Lites (pgs. 185-186)

- ▶ Performance divided lites with 5/8", 7/8", 1-1/8", 1-3/8", 1-3/4", 2-1/4" or 4-1/2" bars
- ▶ Grilles-in-the-airspace

Exterior Finishes (pg. 183)

- ▶ K-Kron II exterior paint finish

Other Options (custom options are also available)

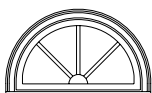
- ▶ Custom shapes such as trapezoid, triangle and octagon
- ▶ Other wood species and FSC-certified wood (pg. 182)
- ▶ Interior prefinishing (pg. 182)
- ▶ Interior casing
- ▶ Exterior brickmould and casing (pg. 187)
- ▶ Ovolo or square profile glazing beads and interior divided lite bars (pgs. 185-186)
- ▶ Glazing may be direct set
- ▶ Extension jambs (up to 12" applied, over 12" shipped loose for field application)
- ▶ Galvanized steel installation clips
- ▶ High performance modifications

NOTE: All measurements are nominal.

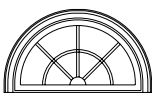


Radius | Elevation Charts

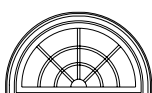
Radius Divided Lite Patterns



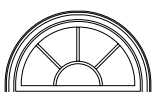
Sunburst



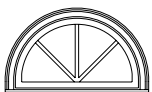
Double Cut
Sunburst



Triple Cut
Sunburst



Open Hub
Sunburst



Starburst



Spider
Web



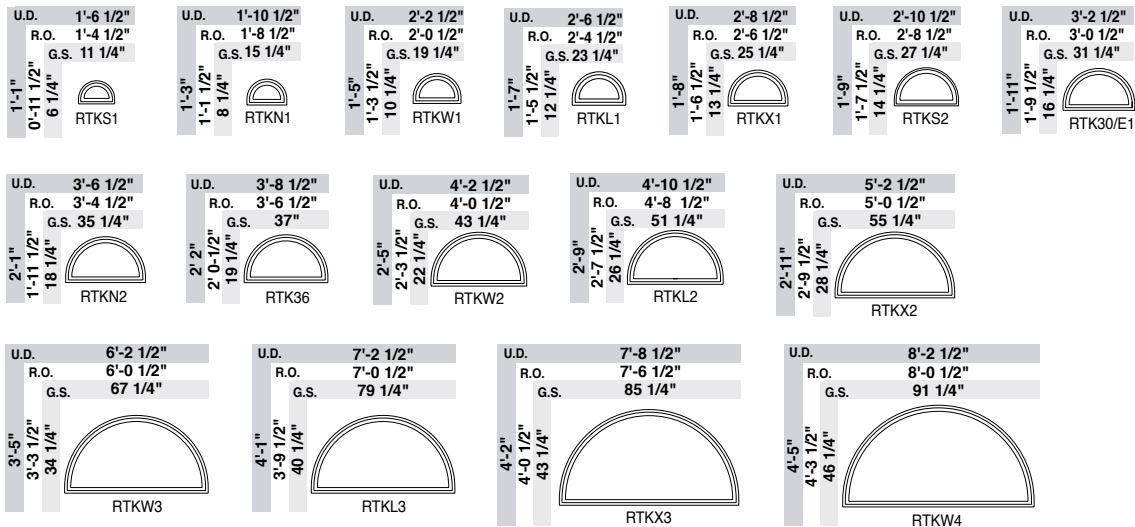
Elliptical
Sunburst

Dimension Calculations

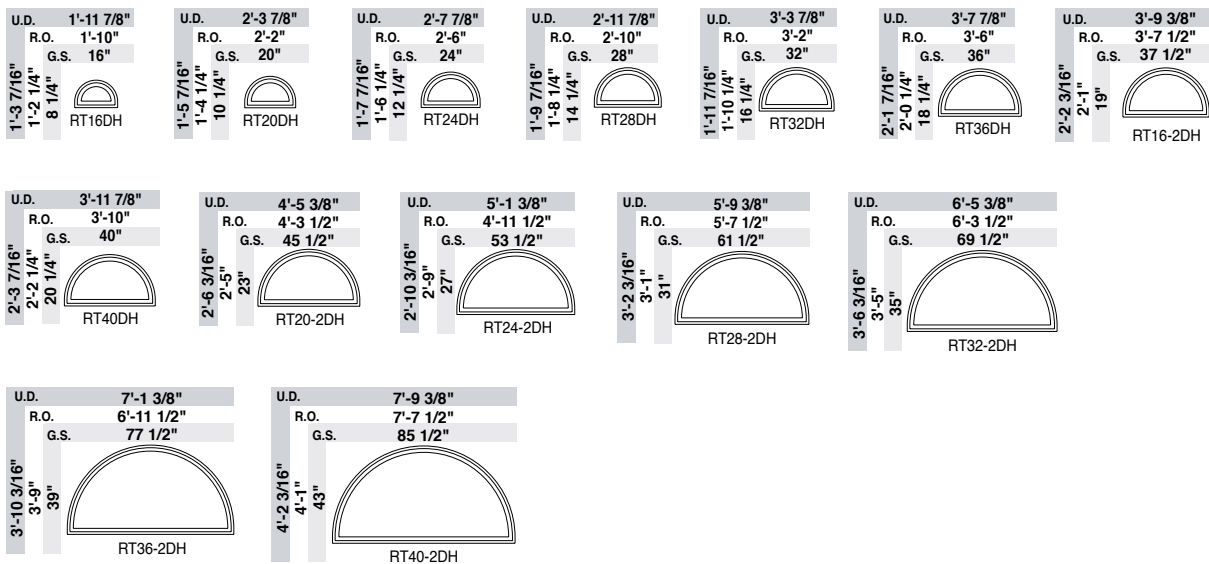
Dimension calculation formulas for radius units vary depending on the unit and application. Please contact your Kolbe dealer if formulas are needed.

NOTE: 2-1/4" PDL bars are not available for patterns with curved bars.
Some designs may have a composite material for the exterior PDL bar.

Half-Circle Units | Casement



Half-Circle Units | Double Hung



U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

Radius units are sash set as standard. Direct set units are available. Glass sizes differ for direct set units. Contact your supplier for details.

The units shown are stand-alone units. Adjustments may be required when stacking over other units; adjustments will be made in the factory.

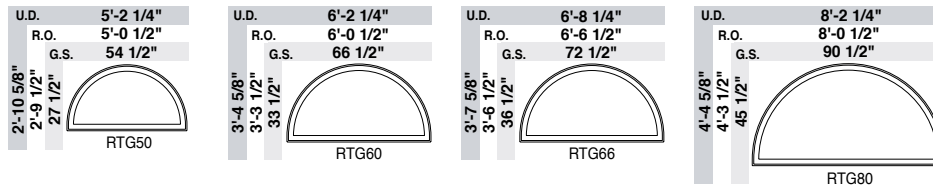
Divided lites are optional. Divided lite pattern options are shown on pg. 116.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.

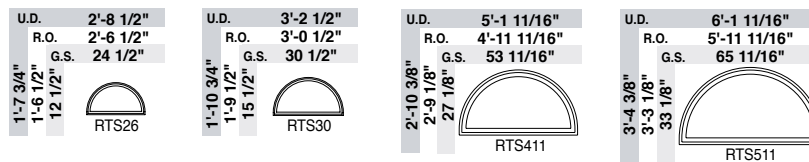
Additional and the most current drawings are available at www.kolbewindows.com.

Radius | Elevation Charts

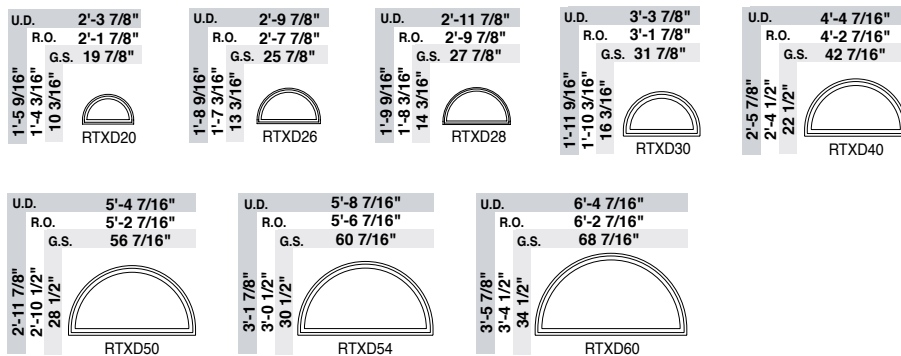
Half-Circle Units | Garden-Aire Sliding Patio Door



Half-Circle Units | Inswing Patio Door



Half-Circle Units | Inswing Exterior Door



U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

Radius units are sash set as standard. Direct set units are available. Glass sizes differ for direct set units. Contact your supplier for details.

The units shown are stand-alone units. Adjustments may be required when stacking over other units; adjustments will be made in the factory.

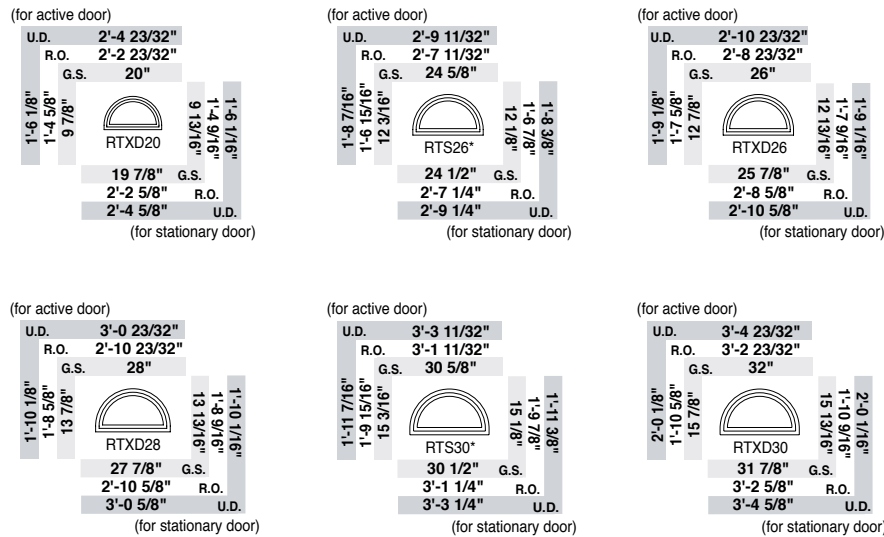
Divided lites are optional. Divided lite pattern options are shown on pg. 116.

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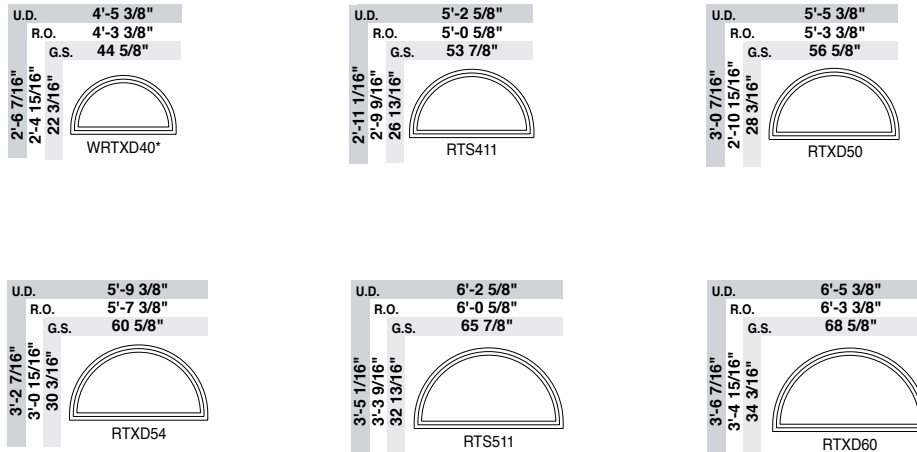
For rough opening recommendations, see pg. 194.

Additional and the most current drawings are available at www.kolbewindows.com.

Half-Circle Units | 1-Wide Outswing Entrance Door



Half-Circle Units | 2-Wide Outswing Entrance Door



* Patio door sizes

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

Radius units are sash set as standard. Direct set units are available. Glass sizes differ for direct set units. Contact your supplier for details.

The units shown are stand-alone units. Adjustments may be required when stacking over other units; adjustments will be made in the factory.






Divided lites are optional. Divided lite pattern options are shown on pg. 116.

Some installation procedures will require a larger rough opening than noted (i.e. installations utilizing our installation clips), therefore, you may need to increase the rough opening size accordingly. Rough opening gaps may be increased up to a maximum of 1/2" on all sides and still be within good practice guidelines. For rough opening recommendations, see pg. 194.








Additional and the most current drawings are available at www.kolbewindows.com.







Radius | Elevation Charts

Elliptical Units | Casement





U.D.	4'-2 1/2"	5'-2 1/2"	6'-2 1/2"	7'-8 1/2"	8'-2 1/2"
R.O.	4'-0 1/2"	5'-0 1/2"	6'-0 1/2"	7'-6 1/2"	8'-0 1/2"
G.S.	43 1/4"	55 1/4"	67 1/4"	85 1/4"	91 1/4"
1'-8"					
1'-6 1/2"					
13 1/4"					
					
	EHKW2	EHKX2	EHKW3	WEHKX3	WEHKW4

Elliptical Units | Double Hung



U.D.	3'-9 3/8"	4'-5 3/8"	5'-1 3/8"	5'-9 3/8"	6'-5 3/8"	7'-1 3/8"	7'-9 3/8"
R.O.	3'-7 1/2"	4'-3 1/2"	4'-11 1/2"	5'-7 1/2"	6'-3 1/2"	6'-11 1/2"	7'-7 1/2"
G.S.	37 1/2"	45 1/2"	53 1/2"	61 1/2"	69 1/2"	77 1/2"	85 1/2"
1'-7 11/16"							
1'-6 1/2"							
12 1/2"							
							
	WEH16-2DH	WEH20-2DH	WEH24-2DH	EH28-2DH	EH32-2DH	WEH36-2DH	WEH40-2DH

U.D.	5'-6 7/8"	6'-6 7/8"	7'-6 7/8"	8'-6 7/8"	9'-6 7/8"	10'-6 7/8"
R.O.	5'-5"	6'-5"	7'-5"	8'-5"	9'-5"	10'-5"
G.S.	59"	71"	83"	95"	107 1/8"	119"
1'-7 11/16"						
1'-6 1/2"						
12 1/2"						
						
	WEH16-3DH	WEH20-3DH	WEH24-3DH	WEH28-3DH	WEH32-3DH	WEH36-3DH





Elliptical Units | Garden-Aire Sliding Patio Door

U.D.	5'-2 1/4"	6'-2 1/4"	6'-8 1/4"	8'-2 1/4"
R.O.	5'-0 1/2"	6'-0 1/2"	6'-6 1/2"	8'-0 1/2"
G.S.	54 1/2"	66 1/2"	72 1/2"	90 1/2"
1'-7 5/8"				
1'-6 1/2"				
12 1/2"				
				
	WEHG50	WEHG60	WEHG66	WEHG80



Elliptical Units Inswing Patio Door

U.D.	5'-1 7/16"	6'-1 7/16"
R.O.	4'-11 11/16"	5'-11 11/16"
G.S.	53 11/16"	65 11/16"
1'-7 5/8"		
1'-6 1/2"		
12 1/2"		
		
	WEHS411	EHS511





Elliptical Units | Inswing Entrance Door

U.D.	4'-4 3/16"	5'-4 3/16"	5'-8 3/16"	6'-4 3/16"
R.O.	4'-2 7/16"	5'-2 7/16"	5'-6 7/16"	6'-2 7/16"
G.S.	44 9/16"	56 9/16"	60 9/16"	68 9/16"
1'-7 5/8"				
1'-6 1/2"				
12 1/2"				
				
	WEHDX40	EHXD50	WEHDX54	WEHDX60

Elliptical Units Outswing Patio Door

U.D.	5'-2 5/8"	6'-2 5/8"
R.O.	5'-0 5/8"	6'-0 5/8"
G.S.	53 15/16"	65 15/16"
1'-7 23/32"		
1'-6 1/2"		
11 3/4"		
		
	WEHS411	EHS511

Elliptical Units | Outswing Entrance Door

U.D.	4'-5 3/8"	5'-5 3/8"	5'-9 3/8"	6'-5 3/8"
R.O.	4'-3 3/8"	5'-3 3/8"	5'-7 3/8"	6'-3 3/8"
G.S.	44 5/8"	56 5/8"	60 5/8"	68 5/8"
1'-8"				
1'-6 1/2"				
11 3/4"				
				
	WEHDX40	EHXD50	WEHDX54	WEHDX60

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size

NOTE: All measurements are nominal. Elevation charts are not to scale.

Radius units are sash set as standard. Direct set units are available. Glass sizes differ for direct set units. Contact your supplier for details.

The units shown are stand-alone units. Adjustments may be required when stacking over other units; adjustments will be made in the factory.

Divided lites are optional. Divided lite pattern options are shown on pg. 116.

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Quarter-Circle Units | Casement

U.D. 1'-10 1/2" R.O. 1'-8 1/2" G.S. 15 1/4" 2'-1" 1'-11 1/2" 18 1/4" RTQRN1	U.D. 2'-2 1/2" R.O. 2'-0 1/2" G.S. 19 1/4" 2'-5" 2'-3 1/2" 22 1/4" RTQRW1	U.D. 2'-8 1/2" R.O. 2'-6 1/2" G.S. 25 1/4" 2'-11" 2'-9 1/2" 28 1/4" RTQRX1	U.D. 3'-2 1/2" R.O. 3'-0 1/2" G.S. 31 1/4" 3'-5" 3'-3 1/2" 34 1/4" RTQRK30	U.D. 4'-2 1/2" R.O. 4'-0 1/2" G.S. 43 1/4" 4'-5" 4'-3 1/2" 46 1/4" RTQRW2
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Quarter-Circle Units | Double Hung

U.D. 2'-3 7/8" R.O. 2'-2" G.S. 20" 2'-6 3/16" 2'-5" 23" RTQR20	U.D. 2'-7 7/8" R.O. 2'-6" G.S. 24" 2'-10 3/16" 2'-9" 27" RTQR24	U.D. 2'-11 7/8" R.O. 2'-10" G.S. 28" 3'-2 3/16" 3'-1" 31" RTQR28	U.D. 3'-3 7/8" R.O. 3'-2" G.S. 32" 3'-6 3/16" 3'-5" 35" RTQR32
--	---	--	--

Full Circle Units

U.D. 2'-2"	2'-8"	3'-2"	3'-8"	4'-2 1/2"	6'-2"
R.O. 2'-0 1/2"	2'-6 1/2"	3'-0 1/2"	3'-6 1/2"	4'-0 1/2"	6'-0 1/2"
G.S. 19 1/4"	25 1/4"	31 1/4"	37 1/4"	43 1/4"	67 1/4"
(heights equal widths)					
FC2-0	FC2-6	FC3-0	FC3-6	FC4-0	FC6-0

Oval Units

U.D. 1'-10 1/2" R.O. 1'-8 1/2" G.S. 15 1/4" 2'-8 1/2" 2'-6 1/2" 25 1/4" WOV1-8	U.D. 2'-2 1/2" R.O. 2'-0 1/2" G.S. 19 1/4" 3'-2 1/2" 3'-0 1/2" 31 1/4" OV2-0	U.D. 3'-2 1/2" R.O. 3'-0 1/2" G.S. 31 1/4" 4'-8 1/2" 4'-6 1/2" 49 1/4" OV3-0
--	--	--

U.D. = Unit Dimension • R.O. = Rough Opening • G.S. = Glass Size

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Radius | Cross Section Drawings

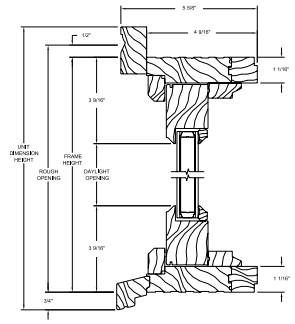
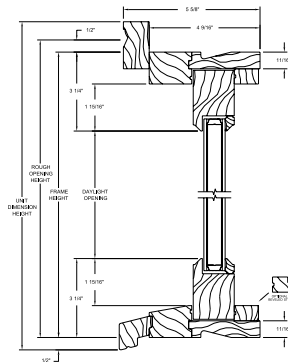
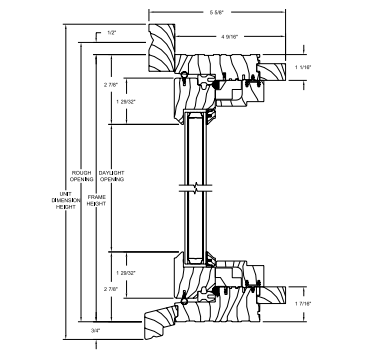
Sash Set Units

To Match Casements

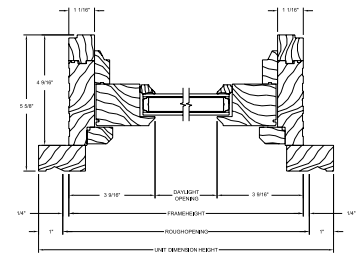
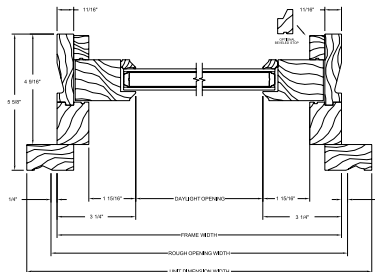
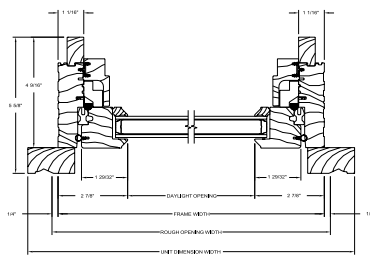
To Match Double Hungs
& Doors (except Outswing)

To Match
Outswing Doors

Vertical Section



Horizontal Section



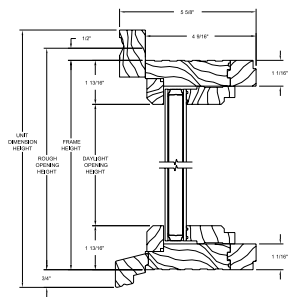
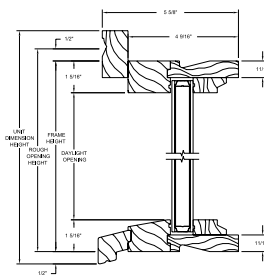
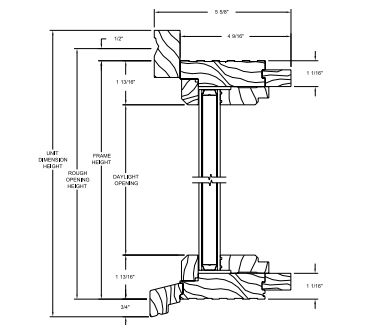
Direct Set Units

To Match
Casements

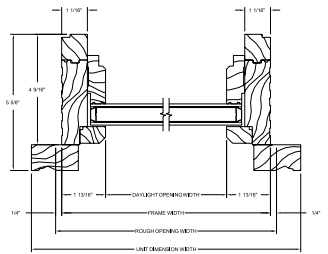
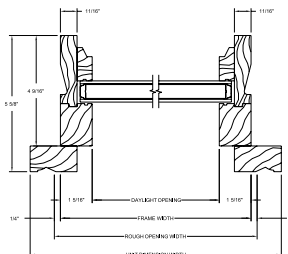
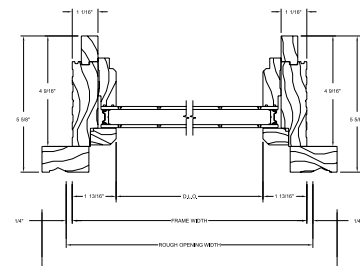
To Match Double Hungs
& Doors (except outswing)

To Match
Outswing Doors

Vertical Section



Horizontal Section



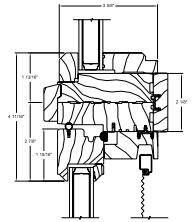
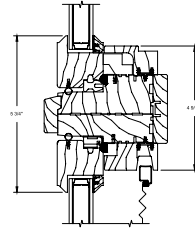
NOTE: Drawings are not to scale. Additional and the most current drawings are available at www.kolbewindows.com.

Radius Unit Stacking Details

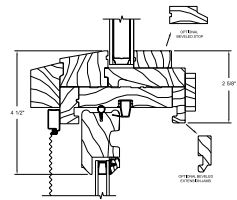
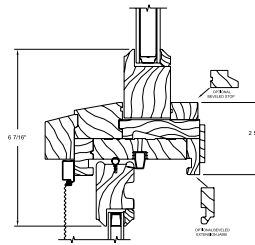
Sash Set

Direct Set

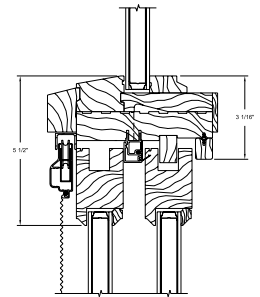
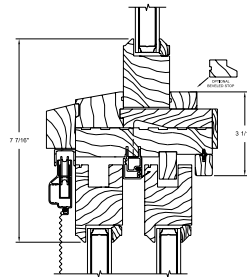
Stacked over Casements



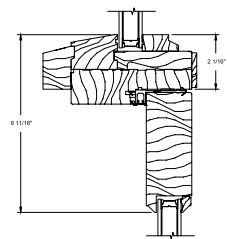
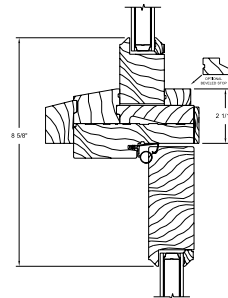
Stacked over Double Hungs



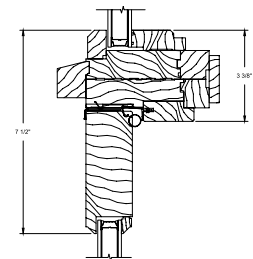
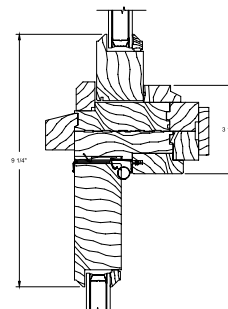
Stacked over Garden-Aire
Siding Patio Doors



Stacked over Inswing
Patio or Inswing
Entrance Doors



Stacked over Outswing
Entrance Doors



NOTE: Drawings are not to scale.
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