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KOLBE®

WINDOWS & DOORS

Ultra Series & VistaLuxe Complementary

Single, Double, Triple & Quad Sliding Windows

Installation Instructions

READ THESE INSTRUCTIONS COMPLETELY BEFORE ATTEMPTING ANY INSTALLATION

⚠ CAUTION

Lead-based paint may be present in older homes, and the removal of windows & doors may cause this paint to be disturbed. In order to minimize exposure to lead-based paint dust, please consult www.epa.gov/lead for more information.

www.kolbewindows.com

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Ultra & VistaLuxe Complementary Single, Double, Triple & Quad Sliding Windows

Installation Instructions

NOTICE

Failure to install and maintain our product according to these instructions will void any warranty, written or implied.

The installer is responsible for consulting the contractor, structural engineer, architect, or consumer, for proper installation according to local codes and/or ordinances.

⚠WARNING

Proper eye and hearing protection must always be worn when installing, removing or performing adjustments to Kolbe window and door products.

⚠WARNING

Improper use of hand/power tools could result in personal injury and/or product damage. Follow manufacturer's instructions for safe operation of equipment.

⚠CAUTION

Some installation situations could be different from those shown in instructions. These instructions may not cover all situations.

(Numbers in parenthesis are metric equivalents.)

ITEMS REQUIRED BY INSTALLER

- Hearing protection device
- Safety glasses/goggles
- Sealant
- Caulk gun
- Level
- Square
- Hammer
- Shims
- Tape measure
- Flat head screwdriver
- Phillips head screwdriver
- Power drill
- Flashing tape
- Fiberglass insulation
- Closed cell foam backer rod in 1/2" (13) diameter and 1" (25) diameter
- Optional: Jamb spreader

For temporary nailing through the nailing fin only:
- 1-1/2" (38) or longer galvanized roofing nails

For installation technique 1:
- Kolbe installation clips
- #8 x 3/4" (19) phillips flat head screws
- #8 x 1-3/4" (44) phillips flat head screws
- #6 x 2-1/2" (64) phillips flat head screws

For installation technique 2:
- 9/64" (4) drill bit
- Putty knife
- #10 x 2-1/2" (64) phillips flat head screws
- #6 x 2-1/2" (64) phillips flat head screws

INTRODUCTION

These instructions are for installation into wood or concrete/masonry walls. The rough opening must be lined with a 1-1/2" (38) thick wood buck. Contact your Kolbe window & door supplier for information on installing units into other wall conditions. Please visit our website at **www.kolbewindows.com** for additional literature and information.

Kolbe sliding windows are available as Standard Performance and High Performance units. To achieve these performance ratings, modifications are made during manufacturing.

PRELIMINARY PREPARATION

Remove the shipping packaging, skid plates or factory applied bracing. Make sure the unit is not damaged and the dimensions are appropriate for the rough opening. Check that you have all necessary hardware.

Remove operating sash, if desired, to make installation of the frame easier (see page 6). Remove the interior extension jamb on the sill by inserting a putty knife between the extension jamb and the sill track (see fig. 1). Starting at one end, push towards the extension, angling the blade toward the sill. Do not pry against the exposed surface of the extension as doing so may mar it. With your other hand, pull the extension outward away from the sill track while leaving its plastic connector attached to the sill track.

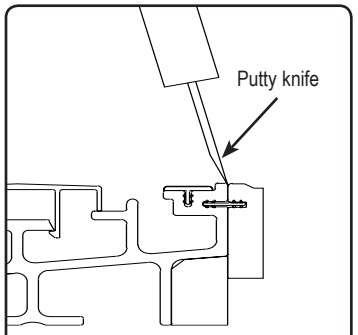

Fig. 1

Before applying sealant or adhesive pads, make sure the area to be sealed is clean, dry, and frost-free. Use color-matching or transparent sealant. Photo shows contrasting sealant for clarity and demonstration only.

⚠CAUTION

Do not remove the jamb strap at this time.

⚠CAUTION

When installing into a wall with exterior rigid foam insulation panels, place solid blocking material behind the brickmould to provide proper support when fastening the unit.

PREPARE ROUGH OPENING:

1. The material/lumber quality and fasteners must be structurally adequate for design load requirements.
2. Typically, the rough opening should be sized 1/2" (13) wider and 9/16" (14) higher than the outside measurement of the window frame. The masonry opening should typically be sized 1/2" (13) wider and 9/16" (14) higher than the clad nosing/ exterior casing.
3. The opening must be plumb, square, level and in plane.
4. Individual construction members should not be twisted.
5. The sill plate beneath the unit must be level for proper unit operation.

A brick, stone, marble or concrete face installed up against the window sill could cause the unit to become inoperable.

Mulled units only:
Apply two Gemini clips (two reversed Kolbe Installation Clips) to non-reinforced combination mulls at the head and sill as shown in Fig 2. Reinforced mull units will have individualized instructions sent with the unit.

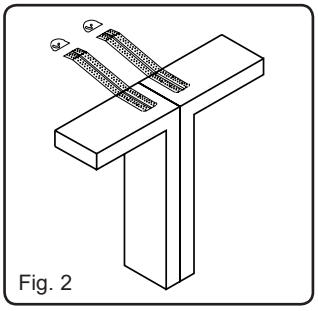
Fig. 2

SEALANT AND FLASHING

Kolbe recommends following ASTM E 2112 guidelines for sealing and flashing exterior windows. Maintain a gap of at least 1/4" (6) between the window frame and the rough opening structure. Create a proper seal between the window and the building exterior. For more details, see our pamphlets *Sealant Information* and *Flashing Information*. These publications are available from your Kolbe window and door supplier or visit our website to download a copy.

These instructions are for use with a surface barrier system. If using a membrane drainage system, please see our Sealant and Flashing Instructions for the proper sealing techniques.

See Fig. 3, 4 or 5 based on your unit configuration for proper sealant placement. Sealant is not shown as continuous for illustration purposes only.

Units with Nail Fin only:
See Fig. 3. Apply two 3/16" (5mm) continuous tooled beads of sealant around the perimeter on the backside of the nail fin as shown in Fig. 2. Also, apply sealant to the edges of the foam corner seal.

Units with Brickmould only:
See Fig. 4, next page. Apply two 3/16" (5mm) continuous tooled beads of sealant around the perimeter on the backside of the brickmould as shown in Fig. 4. Also, apply sealant to the edges of the foam corner seal.

Units with Nail Fin & Brickmould:
See Fig. 5, next page. Apply three 3/16" (5mm) continuous tooled beads of sealant around the perimeter on the backside of the brickmould and nail fin as shown in Fig. 4. Also, apply sealant to the edges of the foam corner seals.

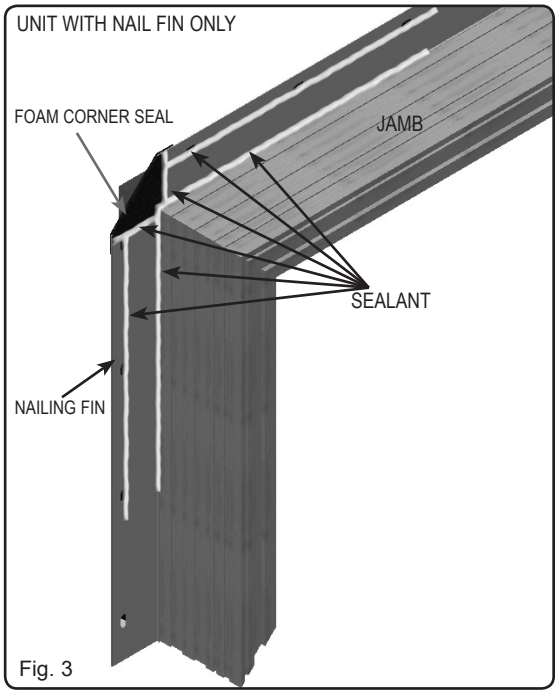

Fig. 3

⚠ IMPORTANT

Be sure all points where the casing meets the side jamb(s) and sill nosing are sealed on the backside of the unit.

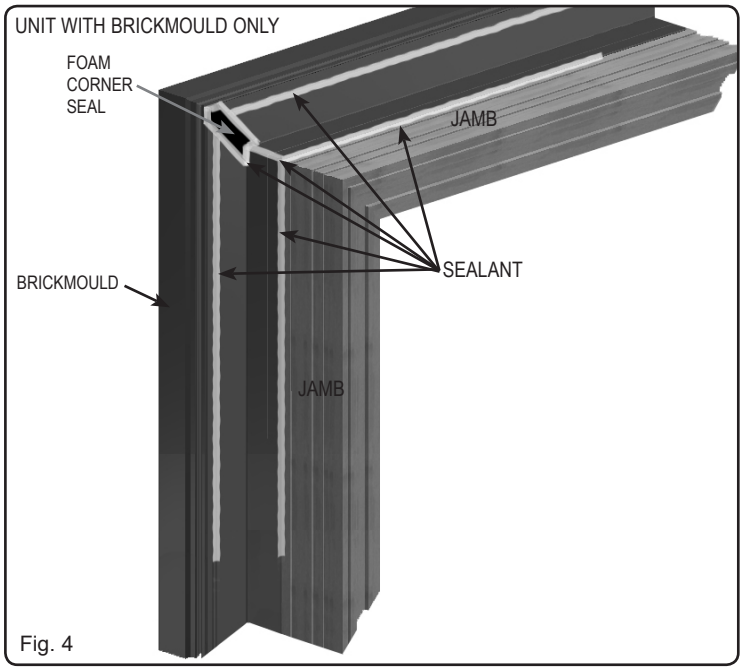

Fig. 4

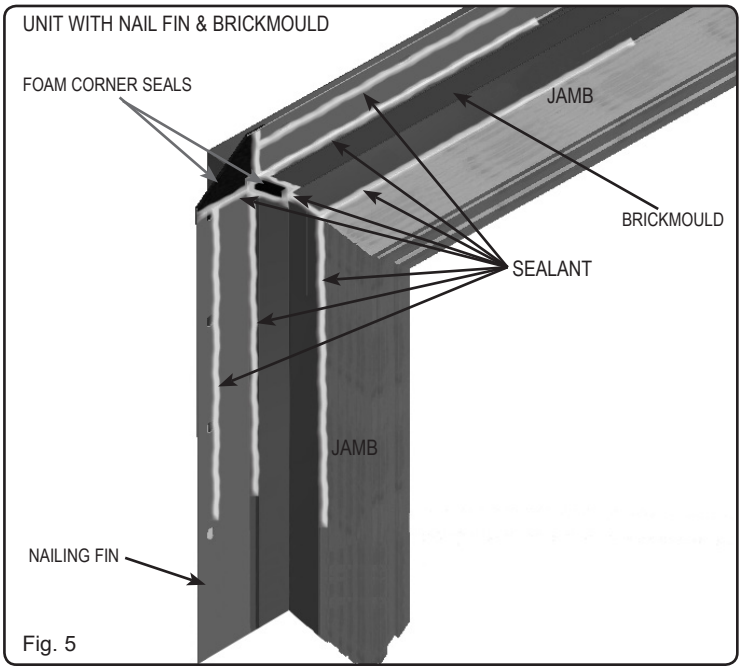

Fig. 5

SELECT INSTALLATION TECHNIQUE

These techniques are general guidelines only, and may not be appropriate for all performance requirements. See the ***Installation Anchor Calculator*** on our website to help determine whether to use ***installation clips*** or to ***screw through the frame***. Kolbe windows & doors recommends using installation clips for units with exterior trim, and in high wind pressure locations. Screwing through the frame may be required with some mullion situations.

As an option, installation clips are available factory-applied to meet a DP 20 (Design Pressure 20 psi) rating. Additional installation clips must be field applied if a higher DP rating is required. Follow the spacing determined by the ***Installation Anchor Calculator.*** Fasten the clips to the frame head and sides using two #8 x 3/4" (19) phillips flat head screws per clip. For more detailed information, follow the instructions provided with your Kolbe installation clips.

INSTRUCTIONS FOR BOTH INSTALLATION TECHNIQUES

From the exterior, carefully tilt the unit, sill first, into the opening. Press the brickmould or nailing fin evenly against the exterior sheathing. Center the unit, equalizing the frame to rough opening gap. Before shimming, remove the jamb tape.

See Fig. 6. Shim along the head, sill, and side jambs, starting 4"(102) from corner/ends and then as required according to the chosen installation technique. Make sure the height of the frame at the center of the unit and at the meeting stiles are the same as the heights at each end. Shim to keep the window sill up off the rough opening sill. Shimming will ensure correct margins, parallel jambs, a level unit, and proper operation. Do not bow the side jambs. Do not over shim.

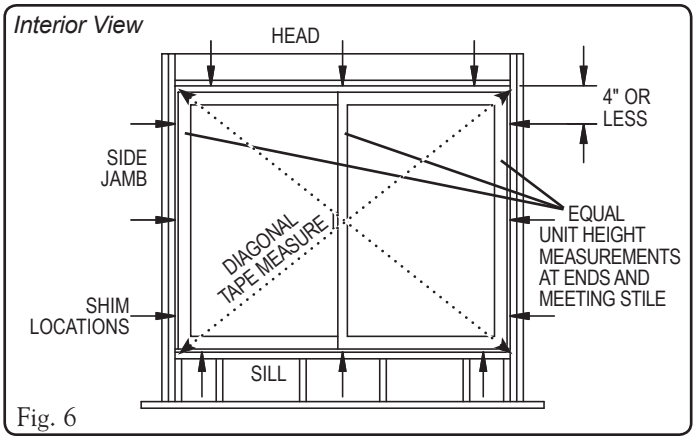

Fig. 6

⚠CAUTION

Sash operation and/or removal may be difficult if the checkrail or meeting stile has not been shimmed properly.

Additional shims must be used at the center of the head and sill to support the meeting stile. On triple and quad sliding units, additional shims are required at both meeting stiles.

See Fig. 6. Measure the distance from the upper left frame interior corner diagonally down to the lower right frame interior corner. Repeat on the remaining two frame corners. The resulting two measurements must be within 1/16" (2) of each other. Make sure the height of the frame at the center of the unit and at the meeting stiles are the same as the heights at each end. Adjust the shims if necessary.

Temporary Fastening by Nailing Through the Nailing Fin

In addition, you must follow Technique #1 or Technique #2 for permanent fastening.

See Fig. 7. When nailing through the nailing fin to temporarily tack the unit in place, use 1-1/2" (38) or longer galvanized roofing nails. Double-check to ensure the sill is level and straight. Plumb the exterior side jambs and level the exterior head jamb. Adjust the shims if necessary. Nail in the first pre-punched hole from each corner/end, then every third hole (10-1/2" (267) on center) along the head, sides, and sill. The head of the fastener should not compress the nailing fin, causing it to warp. Again, make sure unit is square.

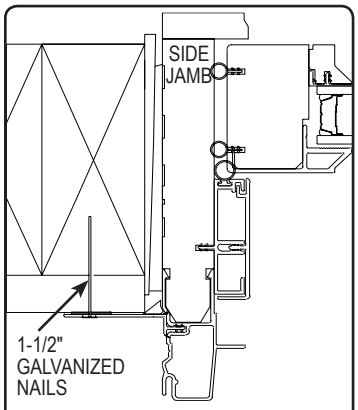

Fig. 7

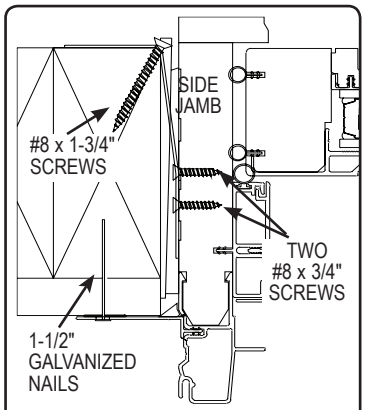

Fig. 8

⚠CAUTION

Use caution when tightening installation clips. **See Fig. 9**, over-tightening installation clips may distort the frame components and break the sealant joints.

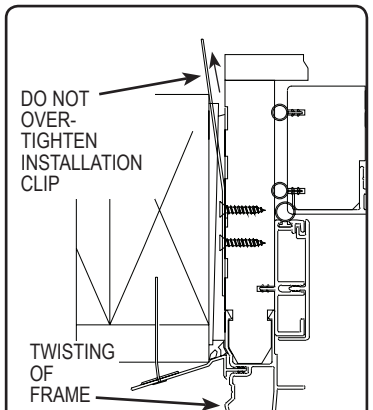

Fig. 9

Technique #1: Kolbe Installation Clips

See Figs. 8 & 9. Double-check to ensure the sill is straight and level. Plumb the exterior side jambs and level the exterior head jamb. Shim on both sides of every installation clip to prevent the frame from bowing. Starting with an interior upper corner, bend clips around the rough opening frame and fasten using #8 x 1-3/4" (44) phillips flat head screws. Continue around the perimeter, making sure the jambs are straight and the unit is square. To keep the head jamb flat and level, remove the short screws in both ends of the head interior channel, along with every other screw in between them, and then replace them in the same holes in the channel using the #6 x 2-1/2" (64) flat head screws and their corresponding drill size shown in Technique #2 (see Fig 15).

If needed, to level the sill after attaching the installation clips, fasten the sill to the rough opening at the required locations using screws as described in Technique #2.

Technique #2: Screw Through The Frame

This technique requires removal of the interior stops, side jamb filler and holder, or both, depending on unit configuration. For single and double sliding units, remove both the interior stop and the side jamb filler and holder. For triple and quad AFFA units, remove both of the side jamb fillers and holders. For quad FAAF units, remove both the interior stops.

Double-check to ensure the sill is straight and level. Plumb side jambs and level exterior head jamb. If the sash were not removed earlier, open one sash at a time.

See Fig. 10. To remove the side jamb filler and its holder, start at the bottom of the filler and insert a putty knife between the filler's holder and the side jamb. Push towards the filler, angling the blade away. Do not pry up against the interior extension jamb as doing so may mar the wood. Using your other hand, grasp one end of the parts and pull outward away from the jamb, being careful not to damage the filler's finish.

See Fig. 11. To remove the interior stop, pull the release tab on the bottom of the stop out away from the side jamb. Pull upward at an angle until the stop releases from its fasteners. Remove the stop from the frame.

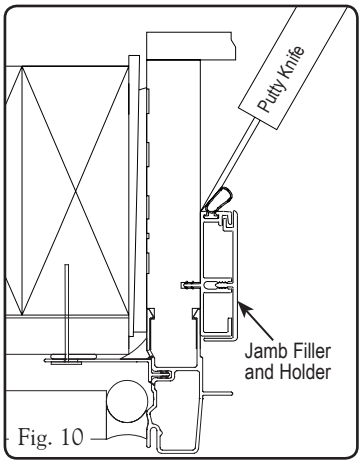

Fig. 10

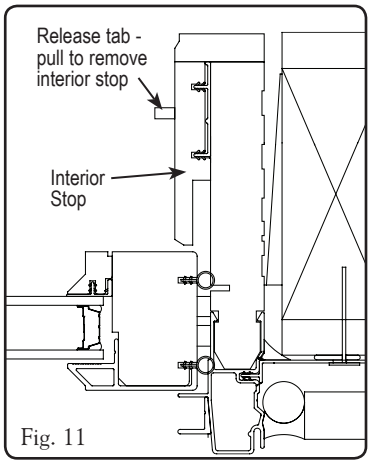

Fig. 11

Following the recommended spacing from the *Installation Anchor Calculator*, mark each screw location. On the side jambs, mark the locations in the areas previously occupied by the side jamb filler and holder or by the interior stop. In the head jamb, mark the locations in the interior head channel. On the sill, mark the locations on the extension jamb filler. Shim underneath each screw location. **See figs 12-15**.

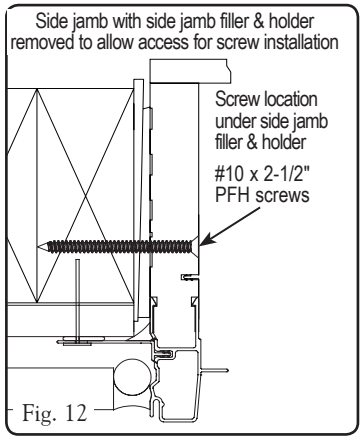

Fig. 12

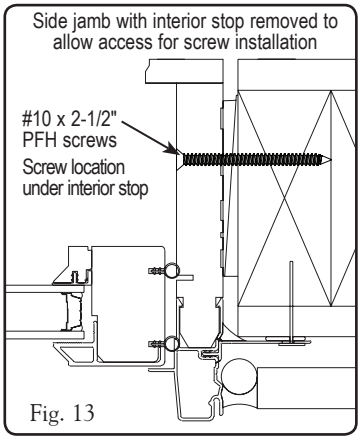

Fig. 13

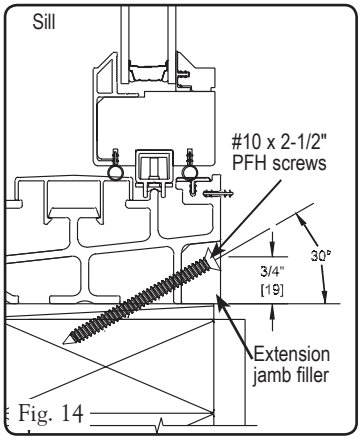

Fig. 14

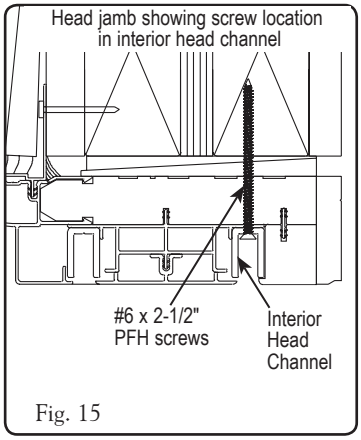

Fig. 15

Check that the unit is still level. Drill a 9/64"(4) diameter pilot hole through the side jamb, shim and into the rough opening at each marked location. Do the same for the sill extension jamb filler. Drill a 7/64" (3) diameter pilot hole through the head interior channel, jamb, shim and into the rough opening at each of the marked locations. Fasten through the holes and into the rough opening with #10 x 2-1/2"(64) phillips flat head screws in the side jambs and sill, see figs. 12, 13 &14. Use #6 x 2-1/2" (64) phillips flat head screw in the head jamb, **see fig. 15**.

See Fig. 16 & 17. Replace the side jamb filler, its holder and the interior stop on the side jambs.

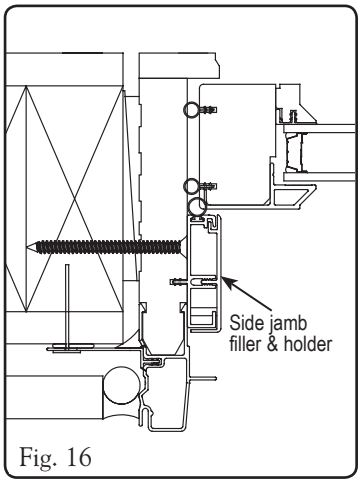

Fig. 16

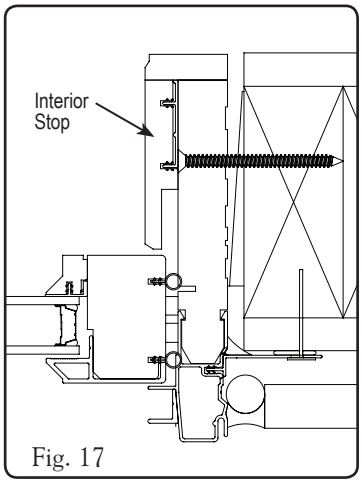

Fig. 17

COMPLETING THE EXTERIOR

A drip cap must be installed to direct water away from the window and lessen the chance of water seepage. **See Figs. 18.** If a drip cap has not been applied, apply now. Seal the side edges of the drip cap to the window. Seal between the drip cap and the exterior sheathing. When using building paper to cover the exterior sheathing, also seal the paper to the drip cap.

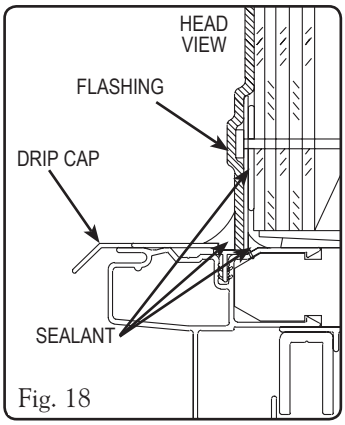

Fig. 18

⚠CAUTION

See Fig. 19. A 1/4" (6) (minimum) gap between the window perimeter and framing material is required when using brick, stone, marble or concrete as an exterior facing. This allows for movement or settling of the structure, which could effect unit operation. Span the gap with an appropriate sealant joint, using backer rod the length of the sill, if necessary.

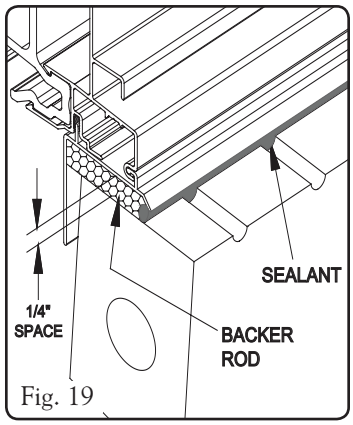

Fig. 19

INSULATION

Kolbe recommends installing fiberglass insulation in the void created by the outer perimeter of the window frame and rough opening members. Using a putty knife, loosely fill the entire depth of the gap with insulation. *Foam insulation may be used, but it must be low expanding type foam. Use of any foam other than low expanding foam will void the warranty.*

⚠CAUTION

Over-packed insulation can lessen the insulating effectiveness and distort the frame, resulting in poor sash operation.

INTERIOR CASING/TRIM

Re-attach the sill extension jamb. First, apply a 3/16" (5) diameter bead of sealant along the upper side of the plastic connector on the sill track and on both ends of the sill extension jamb **(see fig. 20)**. Then, press the sill extension jamb onto the sill track ensuring that the sill track's plastic connector lines up with the corresponding kerf in the extension **(see fig. 21)**.

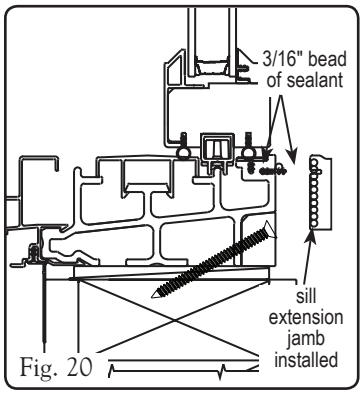

Fig. 20

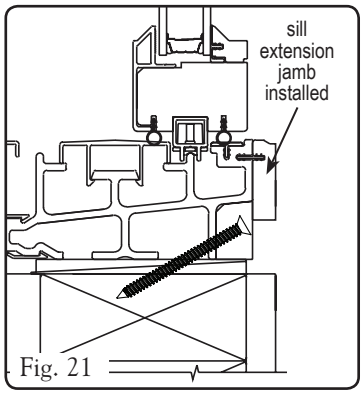

Fig. 21

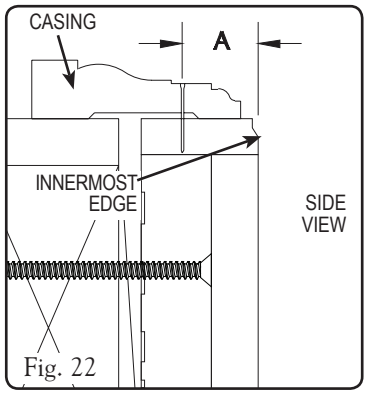

Fig. 22

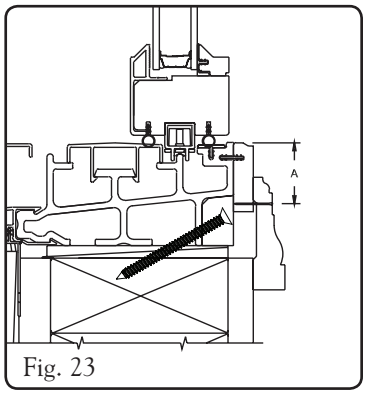

Fig. 23

Apply the interior casing. The spacing for "A" in Figs. 22 & 23 varies. Along the head and sides, install fasteners at least 3/4" (19) away from the innermost edge of the extension jamb **(see fig.22)**. On the sill, install fasteners at least 1-3/16" (30) (1-11/16" (43) for HP sill) away from the innermost edge of the sill extension jamb **(see fig. 23)**. Fasteners installed too close to the innermost edges on the sides can puncture the sash and interfere with operation. At the head, fasteners installed too close to the innermost edges on the head can penetrate through the head extension jamb. At the sill, fasteners installed too close to the innermost edges can penetrate the sill track or sash.

⚠CAUTION

Installing fasteners closer than the minimum spacing will damage the unit.

EXTERIOR/INTERIOR FINISHING

Finish bare wood interiors immediately using a top quality stain, sealer, and/or polyurethane varnish. On factory primed interiors, apply a quality top coat system. See our painting and finishing guide, *Preserving the Natural Beauty of Your Kolbe Windows and Doors,* for more information.

⚠CAUTION

Avoid getting finishing products on any hardware, vinyl components and weatherstripping.

MAINTENANCE TIPS AND PROCEDURES

Inspect your Kolbe products periodically/yearly to see if the exterior sealants and/or finishes have any gaps, cracks, or signs of damage and deterioration. Any cracks must be sealed immediately with a high quality sealant, to maintain the seal integrity of the paint finish and to prevent infiltration of water and air.

CLEANING

A quarterly cleaning with a mild soap and sweet water (tap water) solution is recommended for the sash and frames (all extrusions on Ultra Series products); then rinse. *(Cleaning on units installed in high salt spray areas require a monthly cleaning and rinse.)* Clean glass with standard glass cleaner, keeping it from running down the sash onto the frame and weatherstrip.

⚠ CAUTION

Do not pressure wash.

HARDWARE

Check all fasteners, making sure all hardware is properly secured. The hardware and locks can be lubricated with a Teflon® or Teflon®/silicone spray.

INSULATING GLASS

Broken or fogged IG units, requiring reglazing or replacement, should be referred to your Kolbe Window and Door supplier.

⚠ CAUTION

Kolbe's standard H°K insulating glass has a LoE^2 coating on surface 2. It does not match clear glass or other LoE^2 products. Do-it-yourself reglazing or replacing without permission from Kolbe Windows and Doors will void the product warranty.

OPERATING SASH REMOVAL

The interior sash on many sizes of the sliding window can be tilted in and removed. This also applies to the outer sash on many double sliding window sizes. However, for some larger operating sash sizes, additional steps must be taken to remove the sash from the frame.

To remove small to medium sized operating sash, start by sliding the sash open about 3 inches. Place both hands, one at each end, on the top of the sash near the tilt latches. One latch will be located on the meeting stile on the side between the inner and outer sash and the other latch will be on the opposite side facing the side jamb or the center sash. While holding onto the sash, operate the latches by pulling down on the latch's slide handle to retract the bolt section. When both bolts are fully retracted into the sash, tilt the sash in towards the interior of the unit until its top rail clears the head jamb completely. Then lift the sash upward off of the sill track and remove it from the frame. On double sliding units, this process can be repeated on the outer sash also **(see figs. 24 & 25)**.

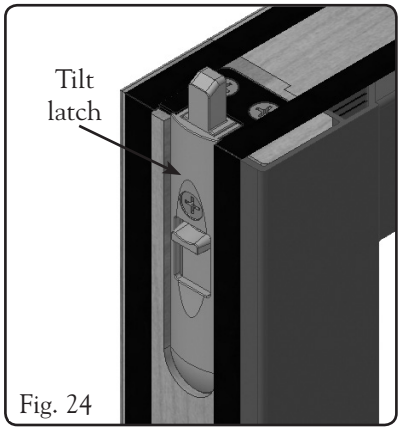

Fig. 24

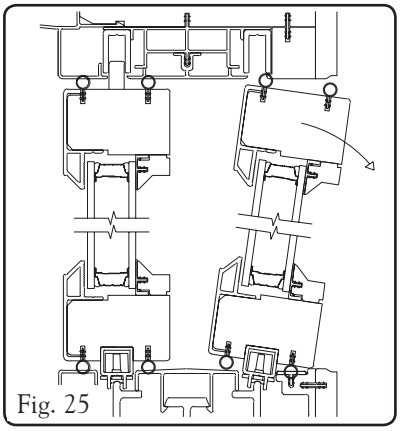
Fig. 25

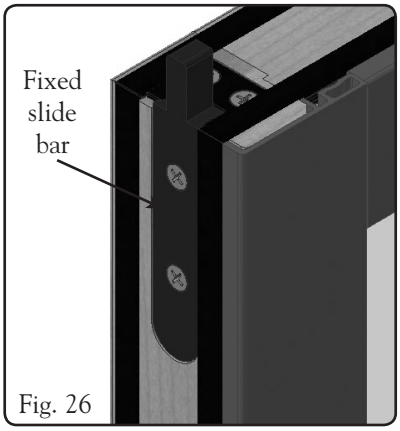

Fig. 26

To remove large sash that do not use a light-colored tilt latch, a few additional steps are required. First, open the sash as indicated previously. Then locate the fixed slide bar on the stile end **(see fig. 26)**. Next, remove the screws that attach the slide bar to the sash and pull the bar out of its route in the sash and remove it from the unit. The sash can now be removed using the tilt latch on the opposite end of the sash in the same manner described for the smaller sash.

OPERATING SASH INSTALLATION

For sash with two tilt latches, locate the sash in the frame at an angle so that the top of the sash is outside the frame, while the rollers on the bottom of the sash engage the roller track area on the sill. Once the rollers are seated properly on the sill track, retract the bolts of both tilt latches and tilt the sash up into a vertical position so the tilt latches are lined up with the channels in the head channels **(See fig. 27)**.

For larger sash that do not use two retractable tilt latches, locate the sash in the frame in the same way as for smaller sash using the single tilt latch on the meeting stile. Then, insert the bolt end of the slide bar into the corresponding head channel and slide it down the channel until it lines up with the open route in the end of the sash's stile. Press the slide bar into this route and attach it to the sash using the same screws that held it in **(see fig. 26, above)**.

For further information, contact your Kolbe window and door supplier or visit us on the internet at www.kolbewindows.com.

Fig. 27

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