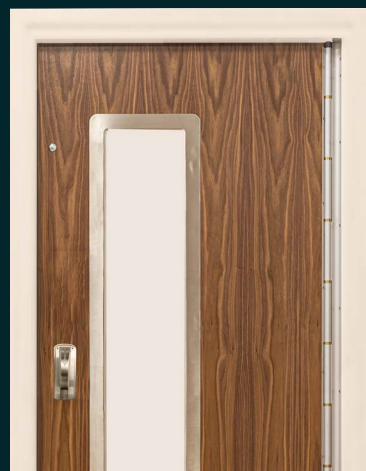


The SOLO Complete Door System provides a robust solution for all single action doorset requirements within behavioral health facilities.

## Installation with New Frame:



### Door Assembly

The SOLO Door System is a single acting door and comes in two assemblies:

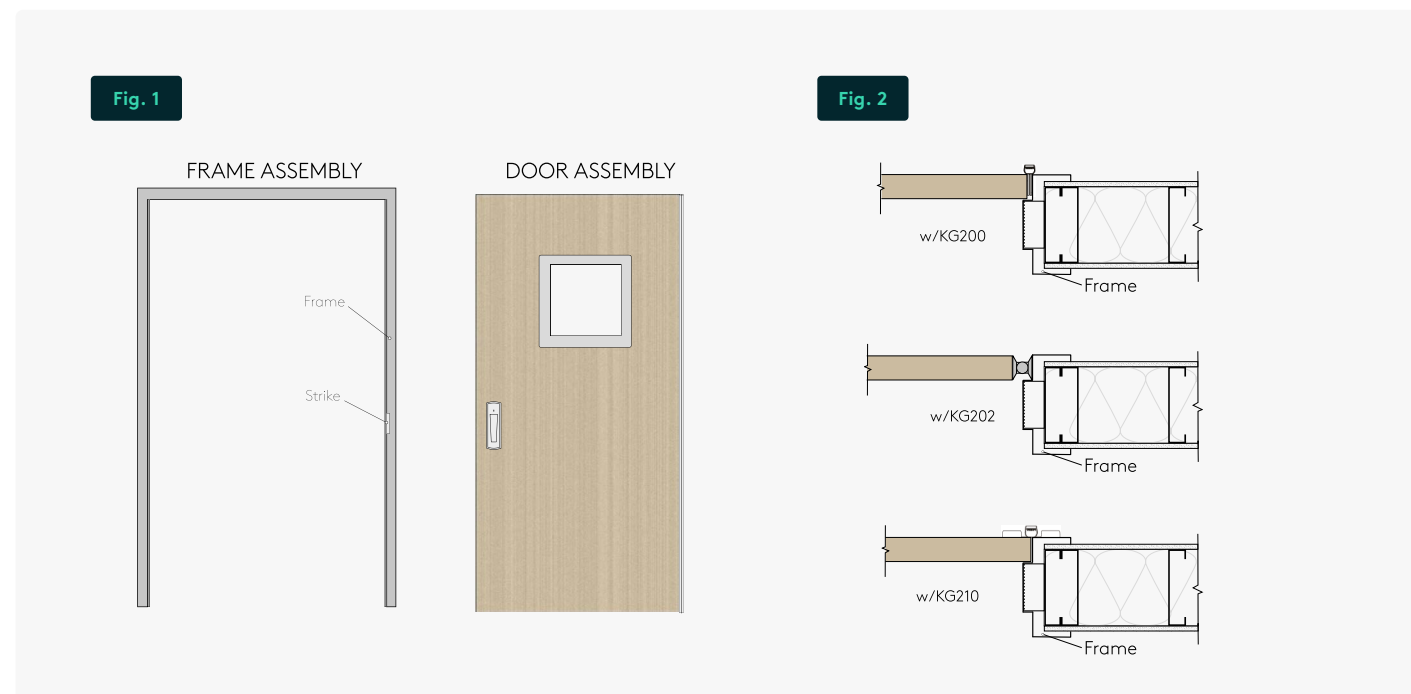
- 1) HM Welded Frame assembly with the strike installed
- 2) The door assembly with all hardware including the hinge pre-installed as shown below in Figure 1:

### Hinges

Please note, your SOLO door will be equipped with one of the following hinges:

- KG202
- KG200

The SOLO Door should be mounted in the HM frame as shown below in Figure 2:



## Installation Instructions

- 1 Install the Kingsway Welded Frame assembly as per installation instructions on page 11.
- 2 After the frame is properly installed and checked, you can now paint the frame per architectural specs.
- 3 Install the SOLO Door assembly. The holes will need to be drilled in the frame at time of install. For this step a minimum of (2) persons is required. The door assembly should be maneuvered into the opening in the closed position as shown in Figure 3.
- 4 Once in place, raise the door assembly using air-shims, wood blocks or other means until the pre-drilled holes in the frame align with the fastener holes in the hinge if provided. If holes are not predrilled, place an 1/8" shim above the top of door at the hinge side to give you the correct spacing. Drill pilot holes using a 5/32" bit, ensuring the door is plumb & square.
 

**NOTE:** Protect the bottom of the door to avoid damage. NEVER twist or slide the door if directly in contact with the floor - this will cause damage such as veneer splinters.
- 5 Once in place, secure using Torx pin security screws.
 

**IMPORTANT:** There should be no gap between the top of the KG202 Hinge and the Frame Header when correctly installed. If there is a gap, carefully loosen the screws and then, while maintaining constant upward pressure, re-tighten the screws to close the gap.
- 6 Once the door is installed and all screws securely fastened, ensure the door functions as intended and is adequately stopped by a floor or wall mounted door stop.
- 7 Ensure the door latches in the strike.

Fig. 3

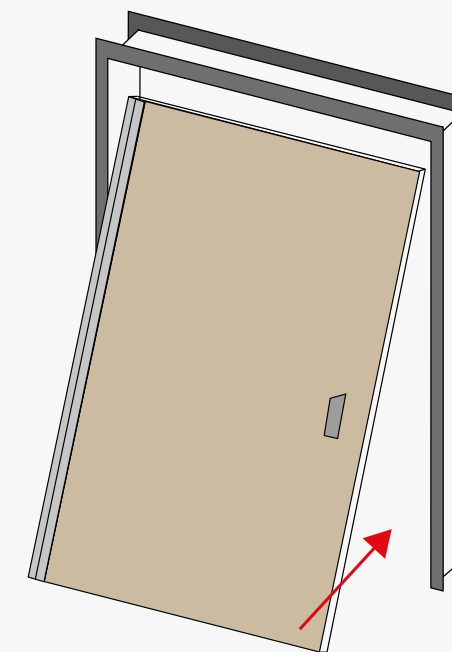
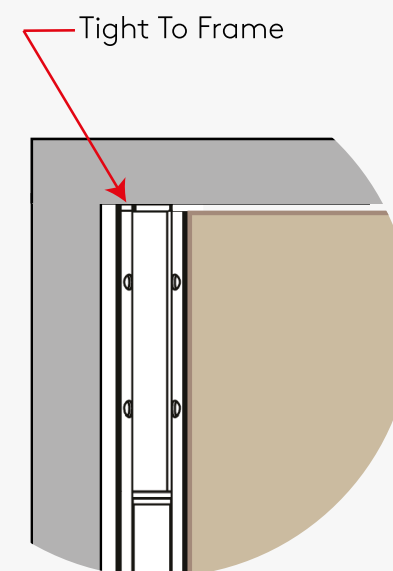


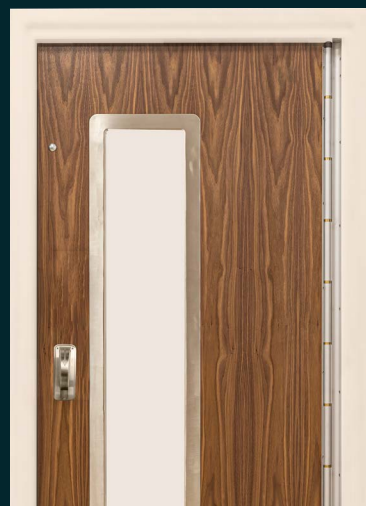
Fig. 4



For further assistance with installation, please call (800) 783-7980 or email us at: [sales@kingswaygroupusa.com](mailto:sales@kingswaygroupusa.com)

The SOLO Complete Door System provides a robust solution for all single action doorset requirements within behavioral health facilities.

## Installation into an Existing Frame:



### Door Assembly

The SOLO Door System is a single acting door and comes in one assembly for installation into an Existing Frame:

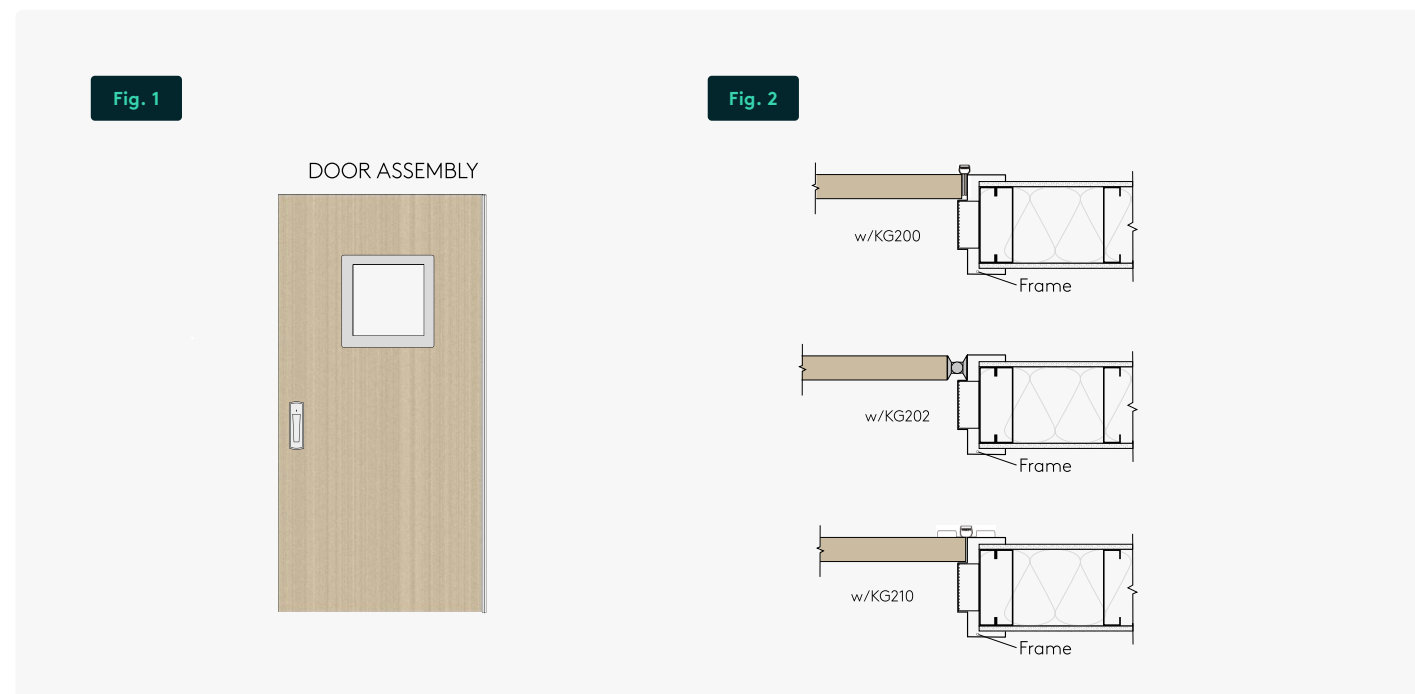
1) The door assembly with all hardware including the hinge pre-installed as shown below in Figure 1:

### Hinges

Please note, your SOLO door will be equipped with one of the following hinges:

- KG202
- KG200

The SOLO Door should be mounted in the frame as shown below in Figure 2:



## Installation Instructions

- 1 Remove the existing door and any other associated hardware attached to the door and frame.
- 2 Prepare frame: attach header filler to frame on bedroom side and fill hinge mortises if butt hinges were used on the previous door. Fill seams if desired with Bondo or other filler, then prime and paint as required. See Figure X showing the head stop filler.
- 3 Install the SOLO Door assembly. The holes will need to be drilled in the frame at time of install. For this step a minimum of (2) persons is required. The door assembly should be maneuvered into the opening in the closed position as shown in Figure 3.
  - Once in place, raise the door assembly using air-shims, wood blocks or other means until the gap between the head stop filler and top of door is 1/8" or less.
  - Once in place, drill pilot holes in the frame using a 5/32" drill bit at each screw location, ensuring the door is plumb & square.

**NOTE:** Protect the bottom of the door to avoid damage. NEVER twist or slide the door if directly in contact with the floor - this will cause damage such as veneer splinters.
- 4 Once in place, secure using Torx pin security screws.
 

**IMPORTANT:** There should be no gap between the top of the KG202 Hinge and the Frame Header when correctly installed. If there is a gap, carefully loosen the screws and then, while maintaining constant upward pressure, re-tighten the screws to close the gap.
- 5 Once the door is installed and all screws securely fastened, ensure the door functions as intended and is adequately stopped by a floor or wall mounted door stop.
- 6 Ensure the door latches in the strike.

Fig. 3

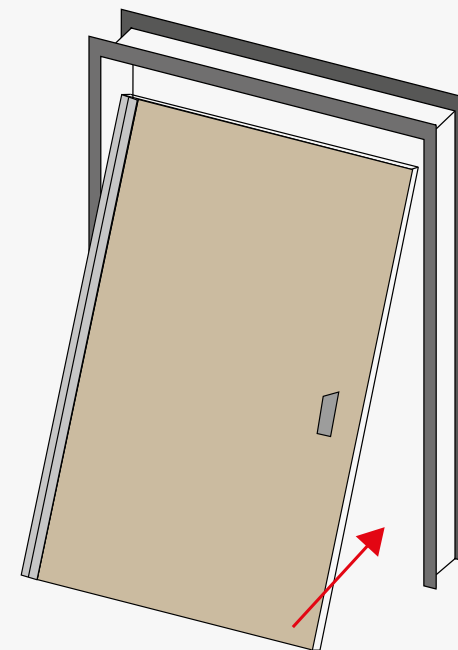
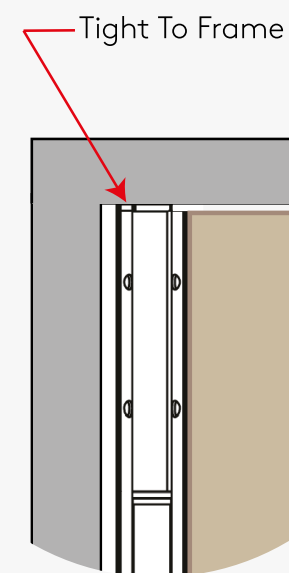


Fig. 4



For further assistance with installation, please call (800) 783-7980 or email us at: [sales@kingswaygroupusa.com](mailto:sales@kingswaygroupusa.com)

The SOLO Complete Door System provides a robust solution for all single action doorset requirements within behavioral health facilities.

## Installation with New Frame & KG35 Closer:



### Door Assembly

The SOLO Door System is a single acting door and comes in two assemblies:

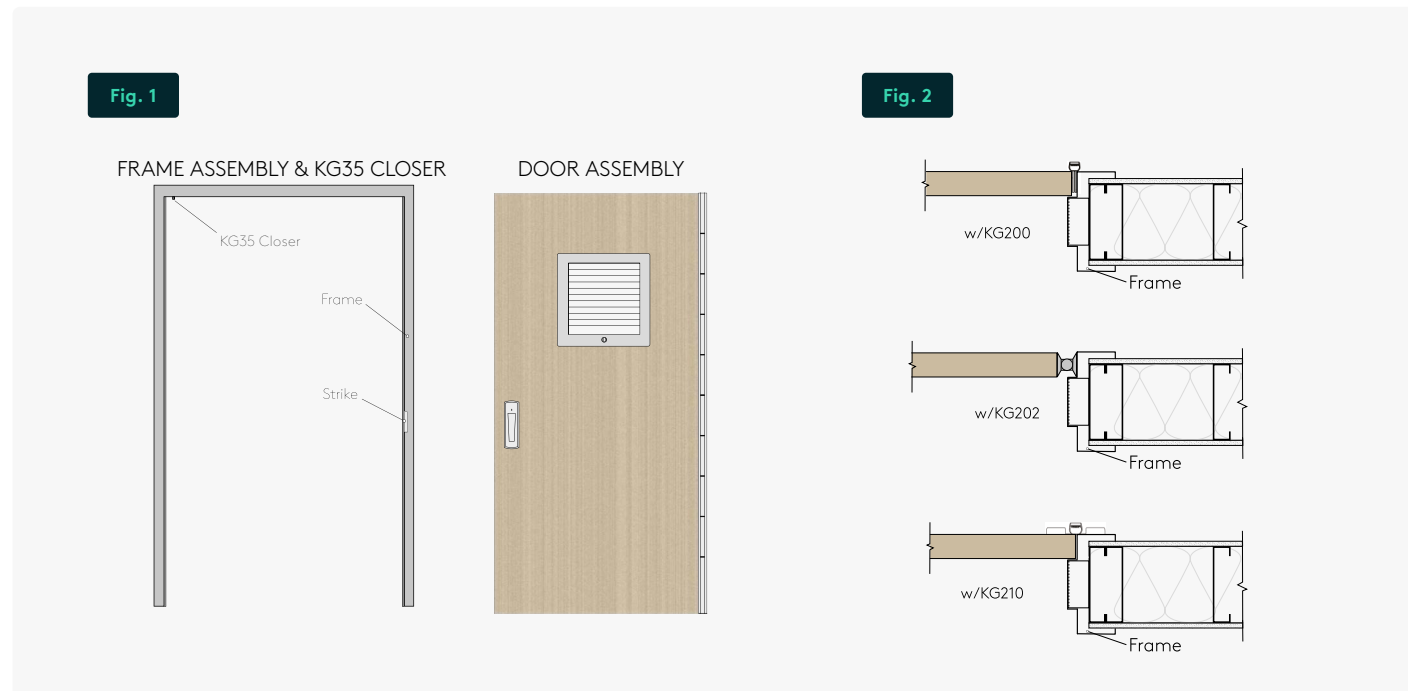
- 1) HM Welded Frame Assembly with the strike and KG35 Closer installed
- 2) The door assembly with all hardware including the hinge pre-installed as shown below in Figure 1:

### Hinges

Please note, your SOLO door will be equipped with one of the following hinges:

- KG202
- KG200

The SOLO Door should be mounted in the HM frame as shown below in Figure 2:



For further assistance with installation, please call (800) 783-7980 or email us at: [sales@kingswaygroupusa.com](mailto:sales@kingswaygroupusa.com)

## Installation Instructions

- 1 Install the Kingsway Welded Frame assembly as per installation instructions on page 11.
- 2 After the frame is properly installed and checked, you can now paint the frame per architectural specs.
- 3 Once the frame is installed, the KG35 Closer must now be prepared by advancing the Closer Stud one notch so that the neutral position of the door will be beyond the centerline as shown in Figure 4.  
  
To do this, use a hex key in the center of the Stud with one hand while holding the Stud with the other to be sure the pin is indexed by one notch only.
- 4 Next, install the SOLO Door assembly. For this step a minimum of (3) persons are recommended: one person to guide the hinge onto the Closer Stud; one to hold the strike of the door; and one to operate shims and prybar at the bottom of the hinge.  
  
The door assembly should be maneuvered into the opening in the closed position as shown in Figure 6.
- 5 Once in place, raise the door assembly using air-shims, wood blocks or other means, making sure the receiver on the door and the Closer Stud mate together and that the pre-drilled holes in the frame align with the fastener holes in the hinge. If holes are not pre-drilled, place an 1/8" shim above the top of door at the hinge side to give you the correct spacing. Drill pilot holes using a 5/32" bit, ensuring the door is plumb & square.  
  
**NOTE:** Protect the bottom of the door to avoid damage. NEVER twist or slide the door if directly in contact with the floor - this will cause damage such as veneer splinters.
- 6 Once in place, secure using Torx pin security screws.  
  
**IMPORTANT:** There should be no gap between the top of the KG202 Hinge and the Frame Header when correctly installed. If there is a gap, carefully loosen the screws and then, while maintaining constant upward pressure, re-tighten the screws to close the gap.
- 7 Once the door is installed and all screws securely fastened, ensure the door functions as intended and is adequately stopped by a floor or wall mounted door stop.
- 8 Ensure the door latches in the strike.

Fig. 3

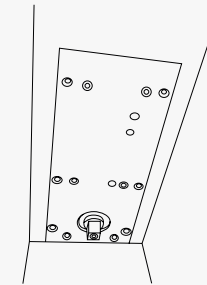


Fig. 4

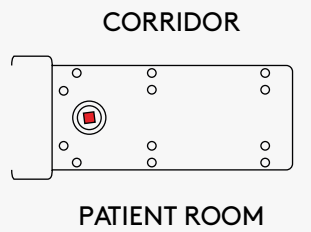
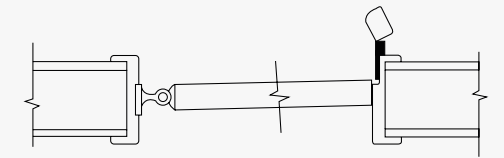


Fig. 5



NEUTRAL POSITION OF DOOR WHEN STOP IS OPEN

Fig. 6

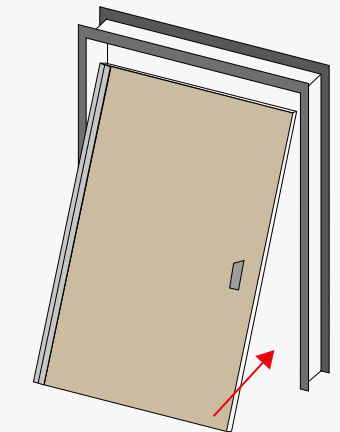
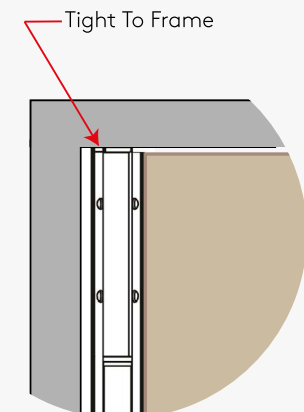


Fig. 7



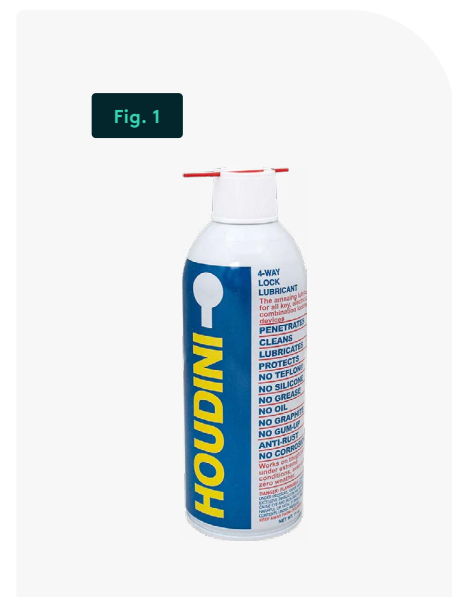
## Maintenance

Maintenance of the SOLO Door system involves attention to three main areas: hinge, the locking mechanism, and hardware to the door. Each require periodic checks and as-needed maintenance as detailed below.

## Cleaning

Start with a microfiber cloth and simply dampen the cloth in warm water. As you wipe down the surface, try to move with the grain. In most cases, this will be more than enough to remove any dust and dirt. If necessary, follow up with another dry microfiber cloth to soak up any excess moisture.

If you need to do some deeper cleaning use a mild soap and warm water mixture. Instead of using large swiping motions, really focus on scrubbing small areas. You can even try using a light spray of non-ammonia based glass cleaner to help get things clean. Avoid harsh and abrasive cleaners.



## Hinge

The SOLO system incorporates one of three hinges. All are designed to be largely maintenance free. Settling of the frame and building may sometimes apply pressure to the hinge, making a squeaking noise. If this occurs, apply clear, dry lock lubricant to the hinge bushings to improve friction as needed. See Figure 1 for recommended lubricant.

## Hardware

In a behavioral health setting, doors and screws are often tampered with. It is important to periodically perform a visual inspection of hardware to ensure screws are tight and to re-tighten as-needed. This will prevent patients from working screws loose and using for self-harm. It is recommended to perform this check every 90 days at the same time as checking the anti-barricade function.



# Installation Checklist

|                               |  |
|-------------------------------|--|
| <b>Door Leaf</b>              | Ensure gaps from leaf to frame are within specified tolerance  |
|                               | Check the free movement of the door in both directions where applicable to ensure it doesn't catch on the floor    |
|                               | Free from damage   |
|                               | Fitting plumb, level and square in the frame   |
|                               | Consistent gap between the door and frame as specified   |
| <b>Door Frame</b>             | Free from damage   |
|                               | Correct number, type, size and location of wall fixings  |
|                               | All fixings correctly plugged and finished   |
|                               | Correct packing materials used between the wall and frame  |
| <b>Fire &amp; Smoke Seals</b> | Compatible with the doorset based on the instructions  |
|                               | Fitted flush in the grooves and without gaps   |
|                               | Smoke seals fill the gap between the door and frame on all sides   |
|                               | Free from damage   |
| <b>Latch or Lock</b>          | Engages securely within the keep when closed   |
|                               | Operates without undue friction  |
|                               | Free from damage   |
| <b>Hinges</b>                 | Functioning correctly without undue friction   |
|                               | Free from damage   |
|                               | If the hinge has been taken off at some point check that it has been refitted correctly and all fixings are secure |
| <b>Anti-Barricade items</b>   | Swing Stops can open outwards fully without hinderance or friction   |
|                               | Switch hinges are operating correctly without friction   |
|                               | Door opens in both directions without binding on the floor   |
|                               | Free from damage   |
| <b>Vision Panels</b>          | Functioning vision panels operate smoothly   |
|                               | Frames and glass free from damage  |
| <b>Other hardware</b>         | Free from damage and correctly functioning   |
|                               | Door closers functioning correctly and fully closing the door  |
|                               | Electrical products correctly wired and functioning  |
| <b>Trim</b>                   | Free from damage   |
|                               | Fitted correctly without gaps  |
|                               | All fixings either plugged or finished with wax  |

# Inspection & Maintenance

All doors should be inspected regularly for damage that prevents the door performing in the event of a fire or an emergency situation, such as a barricade scenario. The following has been drawn up as a guide:

| Area                          | Type of check   | Frequency |
|-------------------------------|---|-----------|
| <b>Door Leaf</b>              | Free from damage  | 1 month   |
|                               | Consistent gap between the door and frame as specified  | 6 months  |
| <b>Door Frame</b>             | Free from damage  | 6 months  |
| <b>Fire &amp; Smoke Seals</b> | All present and free from damage  | 3 months  |
| <b>Latch or Lock</b>          | Engages securely within the keep when closed  | 1 month   |
|                               | Operates without undue friction   | 1 month   |
|                               | Free from damage and all fixings are present and secure   | 1 month   |
| <b>Hinges</b>                 | Functioning correctly without undue friction  | weekly    |
|                               | Free from damage and all fixings are present and secure   | weekly    |
| <b>Anti-Barricade items</b>   | Swing Stops are functioning correctly without friction or damage and all fixings are present and secure | weekly    |
|                               | Switch hinges are operating correctly without friction or damage and all fixings are present and secure | Weekly    |
|                               | Door opens in both directions without binding on the floor  | Weekly    |
| <b>Vision Panels</b>          | Functioning vision panels operate smoothly  | Weekly    |
|                               | Free from damage and all fixings are present and secure   | Weekly    |
| <b>Other hardware</b>         | Free from damage, functioning correctly and all fixings are present and secure                          | Weekly    |
|                               | Door locks and unlocks correctly without hinderance   | Weekly    |
|                               | Door closers are continuing to function correctly and close the door                                    | Weekly    |
|                               | Electrical products working correctly   | Weekly    |
| <b>Trim</b>                   | Free from damage  | 6 months  |
|                               | Fitted correctly without gaps   | 6 months  |

Have a technical issue, or a query? Call (800) 783-7980 or email us at: [sales@kingswaygroupusa.com](mailto:sales@kingswaygroupusa.com)

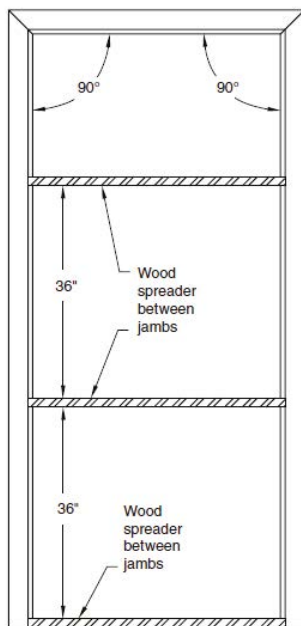
# Welded Frames

**NOTE: PLEASE READ BEFORE INSTALL OF ANY KINGSWAY FRAMES**

Due to the environment Kingsway frames are installed in and the potential abuse that can be sustained, we recommend the following:

- 1) Fully welded frames with Minimum 5 anchors per side
- 2) The use of wood spreaders at the bottom of frames AND at 36" intervals between the top and bottom as indicated in Figure 1.

Fig. 1



## New Frame Installation Instructions

- 1) Prior to installation, jobsite personnel shall ensure correct swing, size and labeling.
- 2) Installation tolerance must be followed as opening will not function properly if the frame is not installed within recognized tolerances.
- 3) For examples of the accuracy to be maintained while setting frames, see Figure 2-5.

Fig. 2

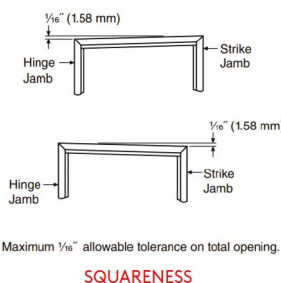


Fig. 3

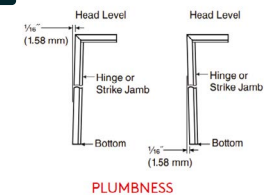


Fig. 4

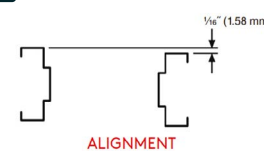
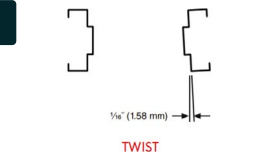


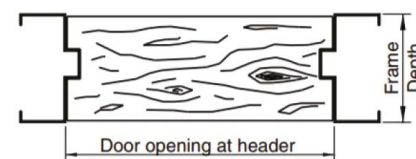
Fig. 5



## Plumbing & Bracing:

- 1) Wood Spreaders (see Figure 6) The Contractor(s) responsible for installation shall have available a sufficient supply of wood spreaders for bracing frames. Spreader bars for shipping purposes shall not be used as installation spreaders.
- 2) Wood spreaders shall be square and fabricated from lumber no less than 1" (25.4mm) thick. The correct length is the door opening width between the jamba at the header (i.e., Single Door 3'-0" = 36" = 915 mm). Length tolerance is +1/16", -0" (+1.6 mm, -0). Cut clearance notches for frame stops. Spreader shall be nearly as wide as frame jamb depth for proper installation.

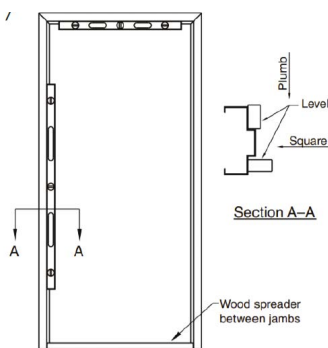
Fig. 6



- 3) Where welded frames are provided with spreader bars for shipping, they shall be removed with a suitable saw or chisel and filed flush before setting frames.

- 4) Figure 7 shows an example of proper frame plumbing & equipment used.

Fig. 7



## Bracing the Frame:

- 1) Frame bracing shall be as shown in Figure 8, or shore to a structure above. It should be perpendicular to the intended wall.

Fig. 8



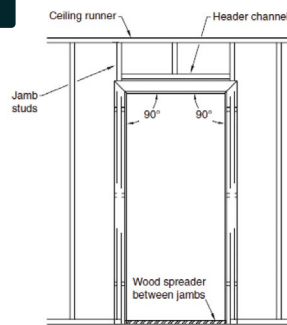
## Positioning the Frame:

- 1) Set the frame in the desired location and level the header. Square jamba to header. Shim under jamba if necessary. With frame properly aligned, insert wood spreaders at bottom and mid-height and fasten jamba to floor through floor anchors.
- 2) Plumb and square jamba.

## For Steel Stud wall construction - studs erected with frame:

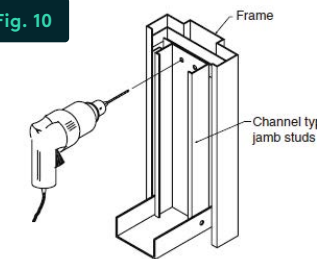
- 1) Attach jamba to floor through floor anchors.
- 2) Install jamb studs to floor, header channels, and ceiling runners butted tightly against frame anchors and properly positioned in frame throat for wallboard. See Figure 9.

Fig. 9



- 3) Nesting or overlapping stud joints or other wall construction practices that will increase the overall wall thickness beyond the intended finished thickness are to be avoided.
- 4) Attach jamb studs to anchors with screws or weld. If using screws, drill from the back side of the stud, through both the stud and anchor, then attach with (2) screws per anchor location (see Figure 10). Screws shall be #6 x 3/8" minimum steel sheet metal or self tapping type.

Fig. 10

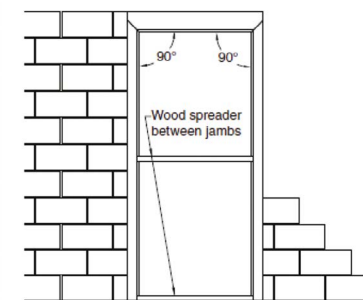


- 5) When attaching header stud to jamb studs, be sure the stud is above frame header. This will assure ample room for attaching plaster lath or drywall and will not interfere with installation of hardware attached to frame header.

## For New Masonry Construction:

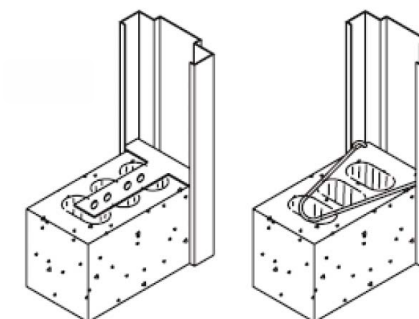
- 1) Erect, brace, square and plumb frame.
- 2) Fasten frame to floor through base anchors.
- 3) Set second spreader at the mid-height of the door opening to maintain the door opening size. See Figure 11:

Fig. 11



- 4) Install anchors (see Figure 12). Grout frame in the area of the anchors as block courses are laid up.
- 5) Continually check plumb and square as wall progresses.

Fig. 12



# Welded Frames

## For Existing Masonry Construction

- 1 Rough openings for existing wall, structural steel framing, or retrofit installations utilizing a butted to wall application shall be no less than 3/16" (4.8 mm) larger the frame on all three sides.
- 2 The installer is responsible for any shimming or aligning required. Gaps are normally sealed as part of the installation or caulking/painting process.
- 3 Refer to Architectural specifications for the appropriate sealant material to be used at fire or smoke control doors.
- 4 Slide frame into wall opening; install wood spreaders. Where possible, one jamb should be butted tightly to the wall.
- 5 Use tapered shims between anchors and wall and spreaders to maintain squareness and alignment of frame, and to maintain door opening sizes.
- 6 Drill appropriate size hole (per fastener manufacturer's instructions) for one-piece anchor bolts. Leave holes "rough" for added grip.
- 7 Backer rod or caulking shall be used where gaps occur between frame and wall.
- 8 Insert anchor bolts and tighten securely, checking for frame alignment periodically.
- 9 Install plugs to cover bolt heads (if so equipped). See Figures 13-15

Fig. 13

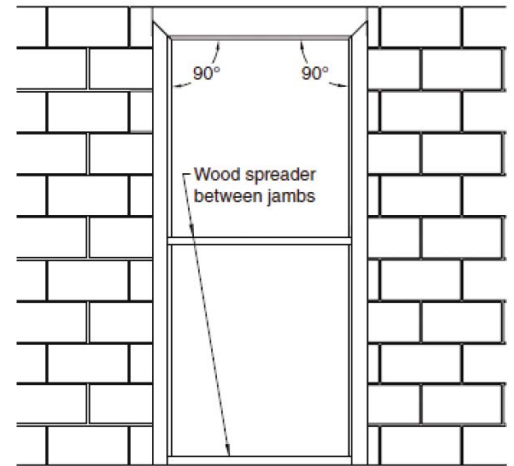


Fig. 14

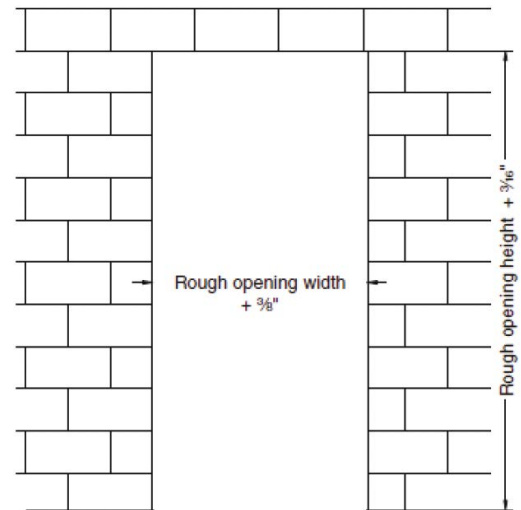


Fig. 15

