



INSTALLATION INSTRUCTIONS

20-Minute Fire Door & Frame Installation

These instructions cover AF-FR Framing, Insert Framing, and Omega Framing
If using hollow metal framing, please refer to manufacturer's instructions.

IMPORTANT: Read all instructions before beginning installation.

These instructions are provided to help prevent installation problems caused by most common errors. They are strictly recommendations and are not intended to be a step-by-step, foolproof installation checklist suitable for every situation. There are many variations of installations not covered in these instructions that Special-Lite assumes are general construction knowledge to an experienced installer.

Selection of an experienced installer is the sole responsibility of the project owner or responsible party. Failure to follow good practice in installation will void the warranty on Special-Lite products.

If you have any questions about installation techniques for your particular project, please call 1-800-821-6531 and ask for a Special-Lite Customer Service Representative. This and other Installation Instructions can be found on Special-Lite's web site at special-lite.com/installation-instructions.



Application Guidelines

- When using mortise locks, flush bolts, surface vertical rods or surface vertical rods less bottom rods require a fire-rated astragal
- Pairs with mortise lock and flush bolts, surface vertical rods, or surface vertical rods less bottom rods require a fire-rated astragal
- Requires fire-rated hardware, including mullions and exit devices, supplied by Special-Lite or others. Hinges must be secured to door with fasteners supplied by Special-Lite
- Requires fire-rated framing and field installation of smoke seal and gaskets supplied by Special-Lite.
- Vision lites must be fire-rated, and can be supplied by Special-Lite or others. Vision lite must be at least 6" from DLO to hardware. Standard vision lite kit sizes available are: 4"x25", 6"x28", 10"x10", 22"x28".



SLI-FR Series Doors | AF-FR Series Framing

CHECK NEW FRAME & DOOR COMPONENTS

1. It is important to field inspect all cartons and crates for damage as well as contents of package for damages.
2. Framing is always K.D.
3. Check work orders or a print to ensure proper material has been shipped before starting job.
4. Measure the new framing and door(s) to make sure everything is sized and located correctly. This is especially important in retrofit situations before demolition of an existing opening is commenced.

ROUGH OPENING AND EXISTING CONSTRUCTED WALL INSPECTION

5. Review existing wall construction to determine type of construction
 - Masonry
 - Stud and drywall
 - CMU
6. Check plans for swing and location of jambs in structure.
7. Measure all framing.
8. Measure the opening to verify it is $\frac{1}{2}$ " larger in width and $\frac{1}{4}$ " taller in height.
9. Check all existing constructed walls and headers for plumb and level.
10. Check the top of the opening and floor to make sure they are level.
11. Determine high side of floor.

NOTE:

Use a level and straight edge to determine the high side of the floor.

ASSEMBLE THE FRAME

12. Slide head onto jamb legs. Install the provided #12 x $\frac{3}{4}$ " stainless steel sheet metal screws in the rabbets at the top of the frame legs (4 places)

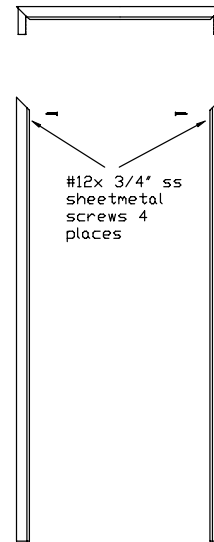


FIGURE A

SET FRAME IN OPENING

NOTE:

The door frame may be set flush with one side of the wall, recessed, or centered.

13. Determine frame location and set frame into position.

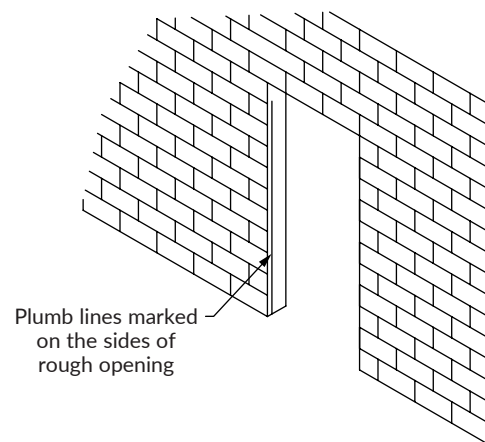


FIGURE B

SLI-FR Series Doors | AF-FR Series Framing

ANCHORING FRAME INTO ROUGH OPENING (existing masonry construction)

NOTE:

An Installation Kit (optional) can be ordered by contacting orders@special-lite.com which consists of:

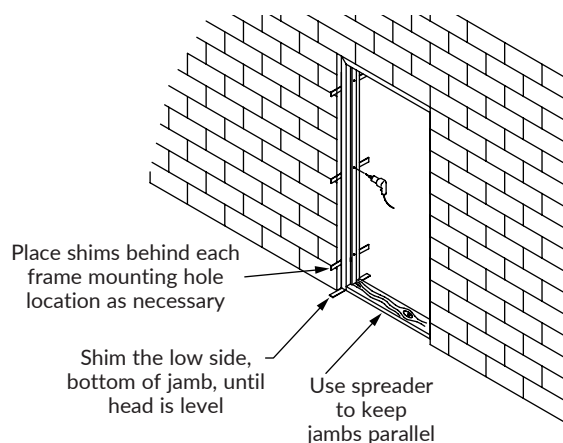
- 16 - EZ-Shims
- 8 - 4" EMF810 tap-con (Crete Flex) #3 Phillips Head S.S. anchors.

14. When frame is in position, place the threshold or a spreader bar the same length as the door opening to keep the strike and hinge jamb parallel.
15. Use fire-rated tapered shims while centering the frame in the opening making sure the door jambs are plum and level, and shim under the jamb if necessary to level the head.

NOTE:

Frames are factory punched and dimpled at each hinge location and corresponding location on the strike jamb. #12 packaging screws must be removed from top and bottom dimple of each jamb at this time.

16. Drill the mounting holes with a 7/32" x 5-1/2" masonry bit in the rough opening through the dimples on the hinge jamb. As the fasteners (DeWALT Crete-Flex #14 Phillips Flat Head) are installed in the hinge jamb with a #3 Phillips bit, the jamb may move out of plumb or square. Shims can be added, removed, or adjusted as needed to keep the jamb in position.



NOTE:

Anchors (Tap Con #14 Phillips Flat Head) must be at least 5" long in order to accommodate for the increase in face width when using a 4" head.

If the door is on site then the installer might find it easier to hang the door after the hinge jamb is fastened to the wall. Then close the door into the opening and adjust the frame as needed to maintain an even margin (1/8") across the top of the door by placing shims at the bottom of the strike jamb to hold it in place. The strike jamb is installed in the same manner as the hinge jamb by using shims to maintain a 1/8" latch jamb clearance.... Make sure that the head is still level and then the strike jamb is installed in the same manner as the hinge jamb.

HANG THE DOOR(S)

Installation of butt hinges

NOTE:

The stile edge of the doors and rabbet of the frames are provided field prepped for butt hinges. Use only the stainless steel sheet metal screws provided. Do not use machine screws, self drilling, and self tapping or combination screws! Hinge screws are best installed with a drill or screw gun that has an adjustable clutch set at the lowest setting to seat the screw.

17. Install the hinges to the door using the stainless steel sheet metal screws provided.
18. Hang door(s) in frame with 3 screws in hinge jamb-one at top, middle and bottom.
19. Close door and check for Special-Lite recommended clearances:
 - 1/8" at strike jamb on single doors
 - 3/16" at meeting stiles
 - 1/8" at head. Adjust as needed.

NOTE:

Shimming behind hinges and adjusting the frame may be required to maintain the recommended clearances.

20. Install remaining hinge screws in frame.

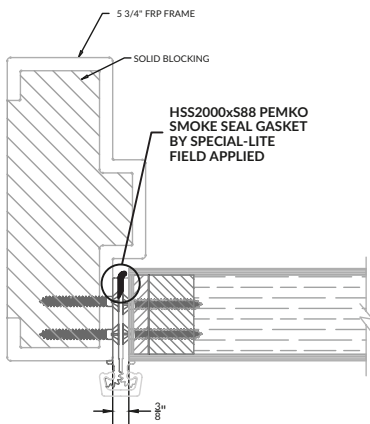
SEAL FRAME PERIMETERS

21. Apply intumescent caulk along the interior and exterior frame return edges.
22. If a threshold is required, place in position and check for proper door clearance. Be sure to set threshold in caulk to prevent threshold from leaking. Secure threshold with proper fasteners. *Threshold must be fire-rated.*

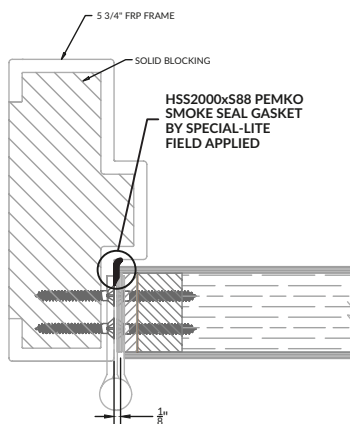
SLI-FR Series Doors | AF-FR Series Framing

Smoke Seal Application

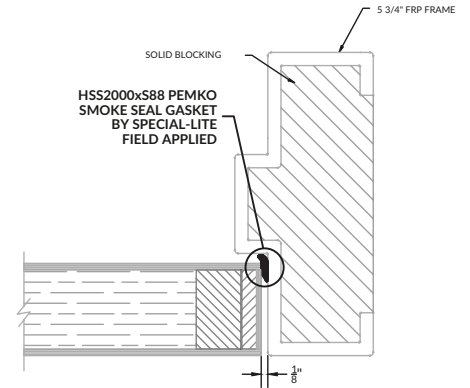
Pemko HSS2000xS88 smoke seal (or listed and labeled equivalent) must be applied to both jambs and header.
Pemko S771 smoke seal (or listed and labeled equivalent) must be installed between pairs.



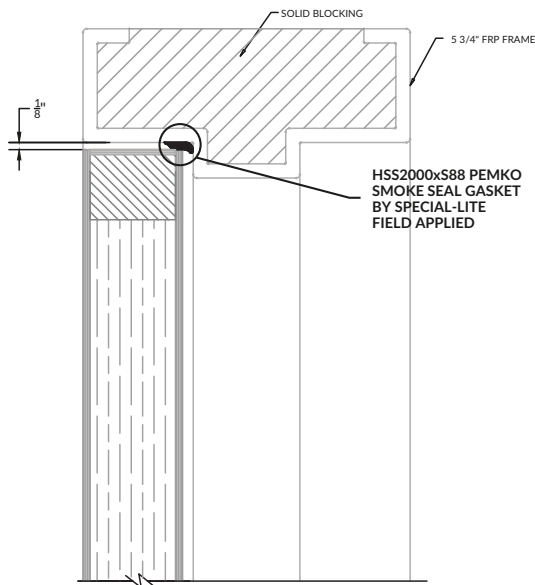
CONTINUOUS HINGE JAMB



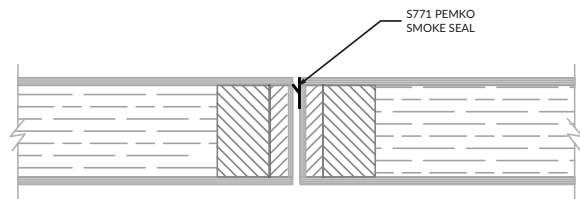
BUTT HINGE JAMB



LOCK JAMB

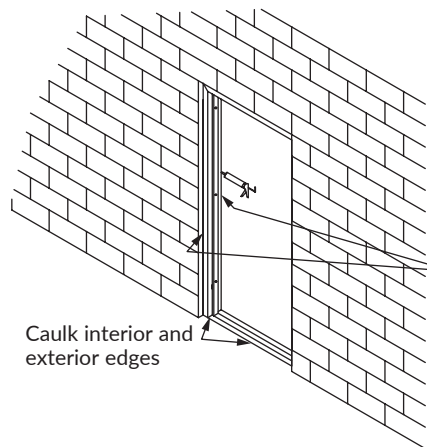


DOOR HEAD DETAIL



STANDARD MEETING DETAIL

SLI-FR Series Doors | Retrofit Framing



Caulk interior and exterior edges

Apply intumescent caulk along exterior and interior frame returns

HARDWARE INSTALLATION

23. Consult manufacturer for proper and or appropriate use and installation.

NOTE:

Use only stainless steel sheet metal screws provided by Special-Lite or wood screws from the hardware manufacture. **Do not use machine screws, self drilling and self tapping or combination screws! Closers and surface mounted hardware must be through bolted.**

24. Field adjustment may be necessary. All hardware must be field adjusted after door is hung, for proper function. (Strikes, closers, mullions, etc.)

CLEAN AND INSPECT DOOR & FRAMES

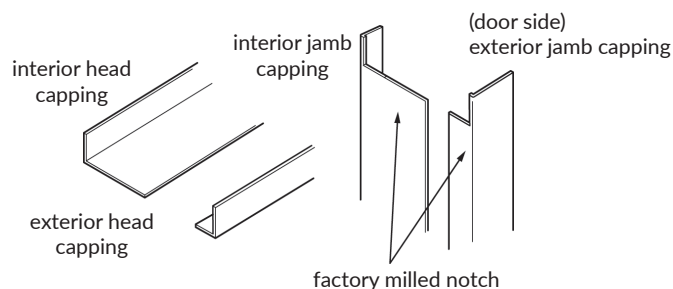
25. Wipe down surface with mild soap and water.
26. Check door for nicks and scratches.
27. Touch up kit for painted products provided for minor imperfections.

INSERT FRAME AND CAPPING INSTRUCTIONS

EXTERIOR CAPPING/INSERT FRAME INSTALL

NOTE:

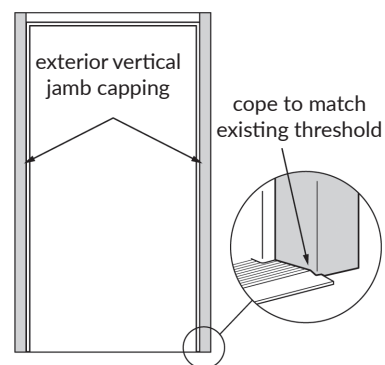
The 1030 framing system can be used with or without capping. If you are not using capping, skip to "Insert Frame Assembly Installation", step 7. The installation procedure for installing the Insert Frame is the same with or without capping. All capping pieces are sent long so they can be trimmed to length in the field. Jamb and header pieces are different. Jamb pieces have a factory-milled notch at the top.



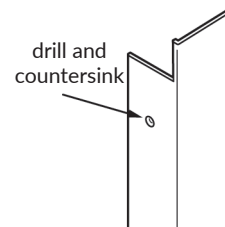
EXTERIOR CAPPING INSTALLATION

IMPORTANT: Exterior jamb capping extends under the insert frame and **MUST** be applied first. Interior capping is applied after insert frame and door installation.

1. Cut exterior jamb capping to the length of the exposed old jamb, to the top of the header. If the old threshold is to be used, do not remove, but cope capping around the threshold. If a new threshold is to be used, run the capping to the floor, then install the new threshold.



2. Drill and countersink mounting holes. These holes will not be exposed because they will be underneath the insert frame.



NOTE:

Use a #6 or #8 flat head screw for mounting. Three mounting holes (top, middle, bottom) are needed. Special-Lite does not provide the mounting fasteners for insert frame or capping.

SLI-FR Series Doors | Insert Framing

3. Install both exterior jamb capping pieces.

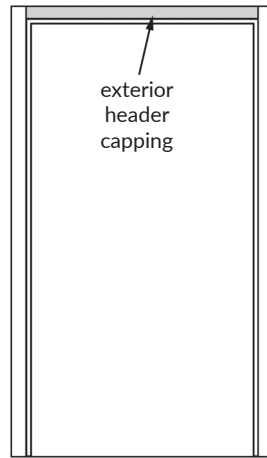
4. Cut the exterior header to length.

IMPORTANT: This cut needs to be exact! Use a power miter saw for a clean, square cut.

5. Drill and countersink mounting holes. These holes will not be exposed because they will be underneath the insert frame.

NOTE:

Use a #6 or #8 flat head screw for mounting. There should be a minimum of 2 fasteners in each header capping - no more than 16" apart.



6. Install the exterior header.

INSERT FRAME ASSEMBLY

IMPORTANT:

The existing door frame must be structurally sound.

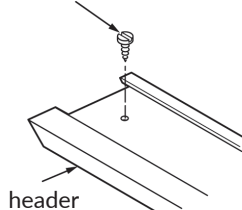
NOTE:

The Insert Frame package should include the materials necessary for the 1030 frame only. This includes two (2) side jambs, one (1) header, plus a bag of shims. Special-Lite does not provide the mounting fasteners for insert frame or capping.

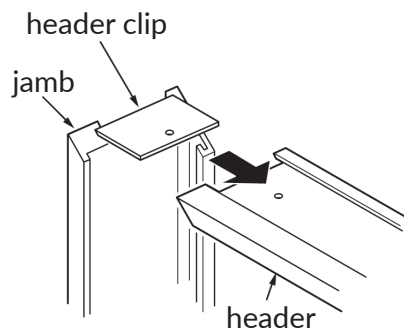
7. Remove the header-clip screws installed in the header.

remove factory-installed screw

8. Assemble the 1030 frame by inserting the factory-installed header clips on the jamb pieces into the header.



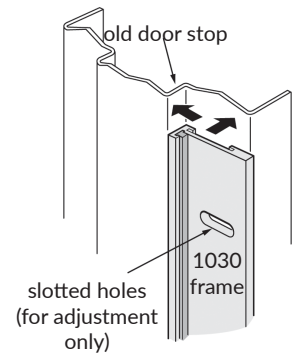
9. Install a header-clip screw in each clip to complete the 1030 frame assembly.



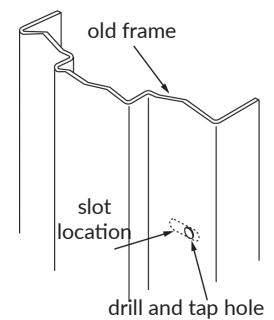
INSERT FRAME ALIGNMENT

10. Set the 1030 frame assembly into the existing door opening.

11. Hold the frame firmly against the old door stop and with the header level, mark the slotted hole locations on the old door frame. After marking slot locations, set 1030 frame aside.

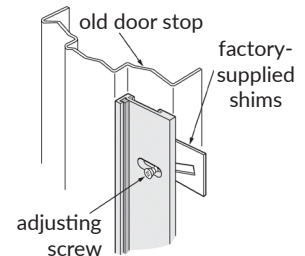


12. Drill and tap holes for the adjusting screws in the old door frame. 1/4 x 20 flat head machine screws should be used (Special-Lite does not provide mounting screws). These holes need to be drilled toward the exterior of the slot for maximum adjust-ability.

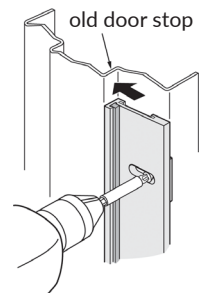


13. Place the 1030 insert frame assembly back into the opening.

14. Start an adjusting screw in each slot. Place factory-supplied shims between old frame and the 1030 frame where necessary to plumb and square frame. The shims have a slot that will slide around the adjusting screw.



15. Slide the 1030 insert frame back against the old door stop and tighten the adjusting screws. Place a level on the hinge jamb and shim frame as necessary by adding or removing shims to plumb the hinge jamb.

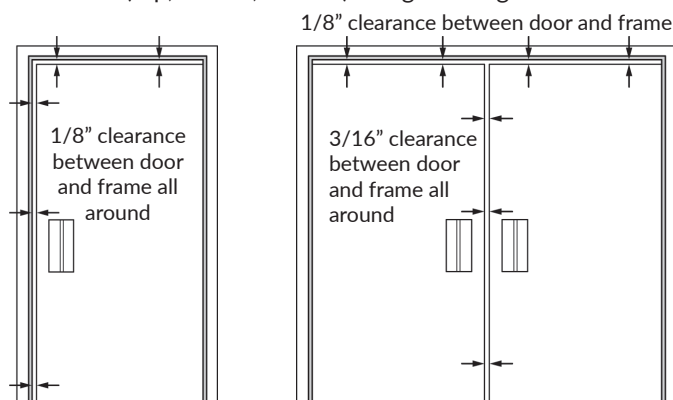


16. Repeat this process on the latch jamb.

SLI-FR Series Doors | Insert Framing

HANG THE DOOR(S)

- 17.** If butt hinges are used, fasten with one screw in each hinge. If a continuous hinge is used, fasten with three screws (top, middle, bottom) along the hinge.



- 18.** Close door and check for 1/8" clearance between door and frame and 3/16" clearance between doors.
- 19.** Check for alignment with 1030 insert frame. If adjustment is needed, loosen the adjustment screws and adjust frame for proper alignment.
- 20.** Tighten adjusting screws.

INSERT FRAME INSTALLATION

- 21.** Doors with butt hinges may remain in position, but a door with a continuous hinge must be removed at this point.

- 22.** Drill and countersink holes for mounting screws for jambs and headers.

NOTE:

Drilled mounting holes need to be for a minimum 1/4 x 20 flat head machine screw (Special-Lite does not provide mounting screws). Holes need to be approximately 2-1/2" from top and bottom and no more than 16" apart. Do not place mounting holes through the hinges. Mounting holes should be placed into the existing old frame at the most secure places (like hinge reinforcement areas) when possible.

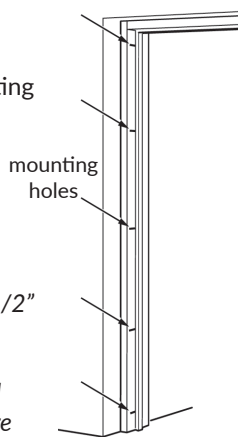


FIGURE M

- 23.** Install mounting screws, but do not tighten.

- 24.** Place provided shims behind mounting holes as required to maintain proper clearance.

- 25.** Tighten mounting screws.

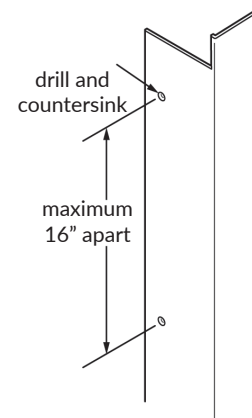
INSERT CAPPING INSTALLATION

- 26.** Cut interior jamb capping to the length of the exposed old jamb, to the top of the header. If the old threshold is to be used, do not remove, but cope capping around the threshold. If a new threshold is to be used, run the capping to the floor, then install the new threshold.

- 27.** Drill and countersink mounting holes.

NOTE:

Use a #6 or #8 flat head screw for mounting (Special-Lite does not provide mounting screws). Holes need to be approximately 2-1/2" from top and bottom and no more than 16" apart. Space evenly for best appearance.



- 28.** Install both interior jamb capping pieces.

- 29.** Cut the interior header to length.

IMPORTANT:

This cut needs to be exact! Use a power miter saw for a clean, square cut.

- 30.** Drill and countersink mounting holes.

NOTE:

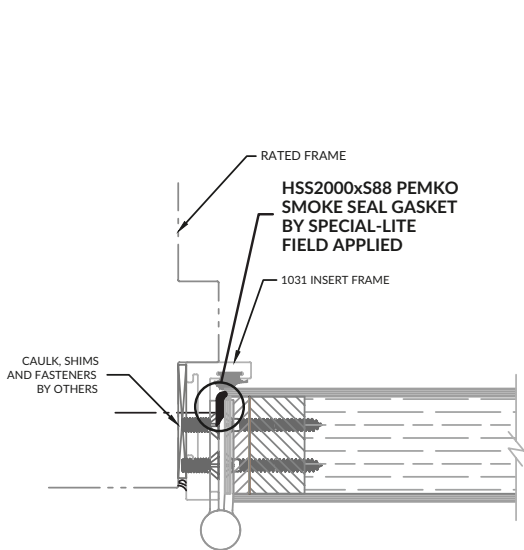
Use a #6 or #8 flat head screw for mounting. There should be a minimum of 2 fasteners in each header capping no more than 16" apart.

- 31.** Install the interior header.

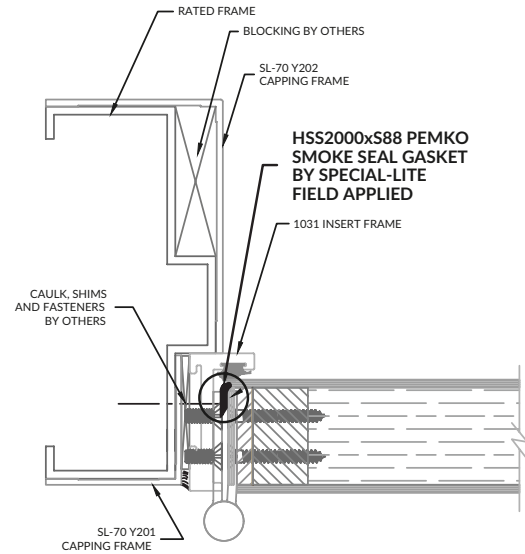
SLI-FR Series Doors | Insert Framing

Smoke Seal Application - 1031 Insert Frame and Capping (For Butt Hinges)

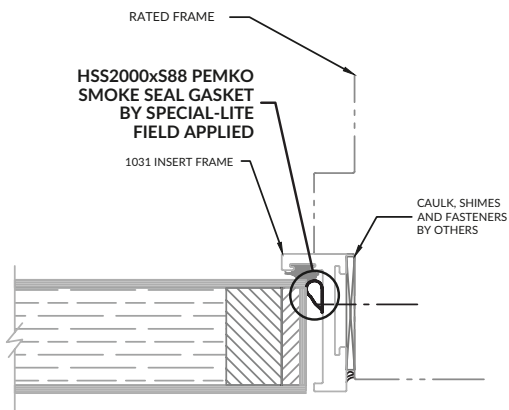
Pemko HSS2000xS88 smoke seal (or listed and labeled equivalent) must be applied to both jambs and header.
Pemko S771 smoke seal (or listed and labeled equivalent) must be installed between pairs.



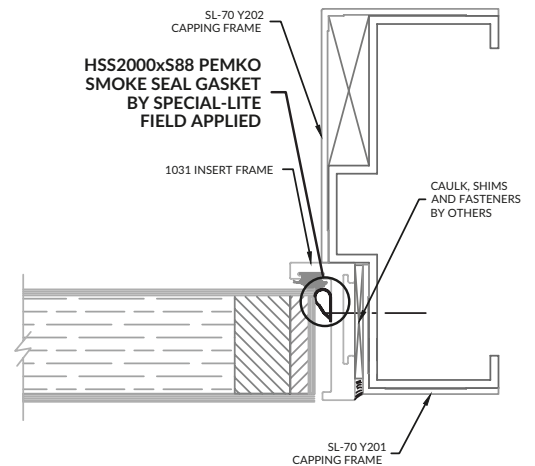
BUTT HINGE JAMB



BUTT HINGE JAMB DETAIL WITH CAPPING



LOCK JAMB

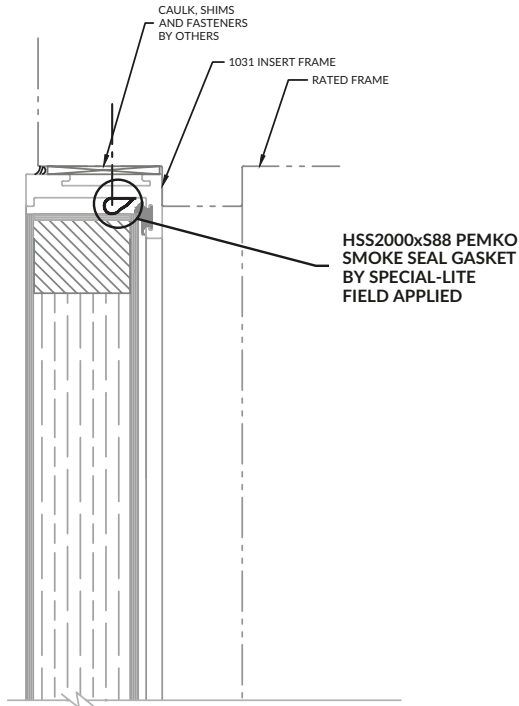


LOCK JAMB WITH CAPPING

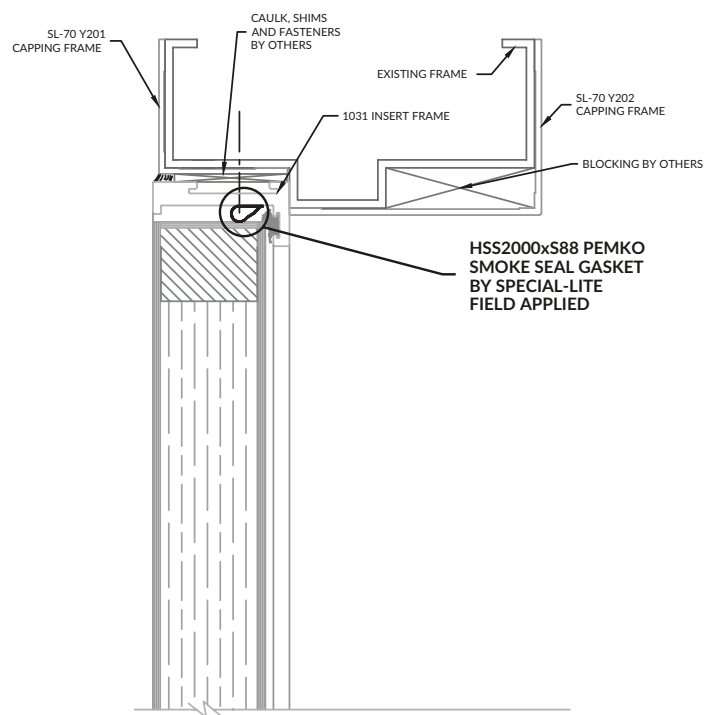
SLI-FR Series Doors | Insert Framing

Smoke Seal Application - 1031 Insert Frame and Capping (For Butt Hinges)

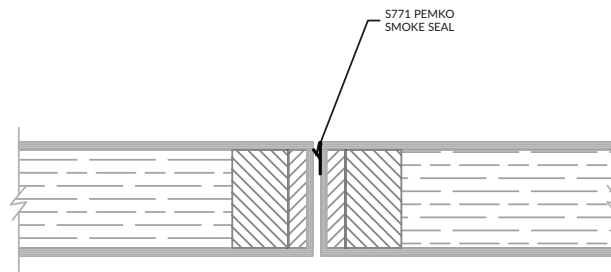
Pemko HSS2000xS88 smoke seal (or listed and labeled equivalent) must be applied to both jambs and header.
Pemko S771 smoke seal (or listed and labeled equivalent) must be installed between pairs.



DOOR HEAD DETAIL



HEAD DETAIL WITH CAPPING

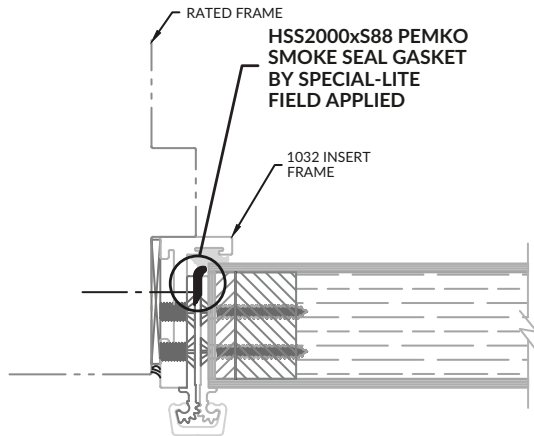


STANDARD MEETING DETAIL

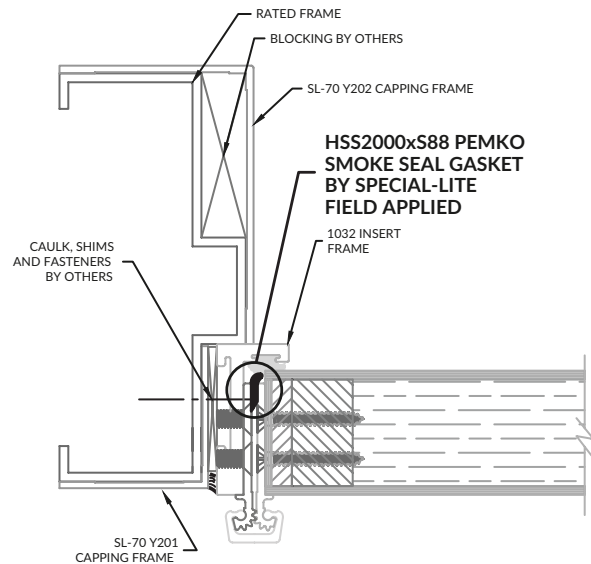
SLI-FR Series Doors | Insert Framing

Smoke Seal Application - 1032 Insert Frame and Capping (For Continuous Hinges)

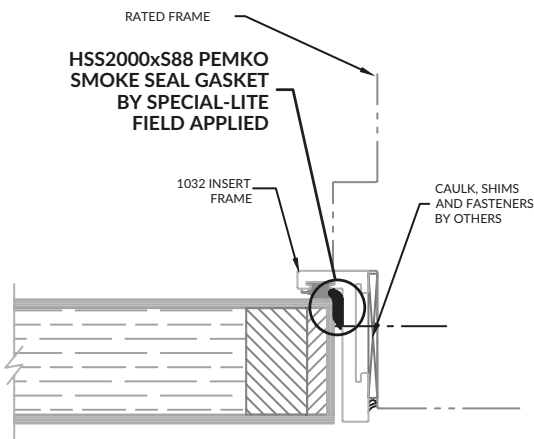
Pemko HSS2000xS88 smoke seal (or listed and labeled equivalent) must be applied to both jambs and header.
Pemko S771 smoke seal (or listed and labeled equivalent) must be installed between pairs.



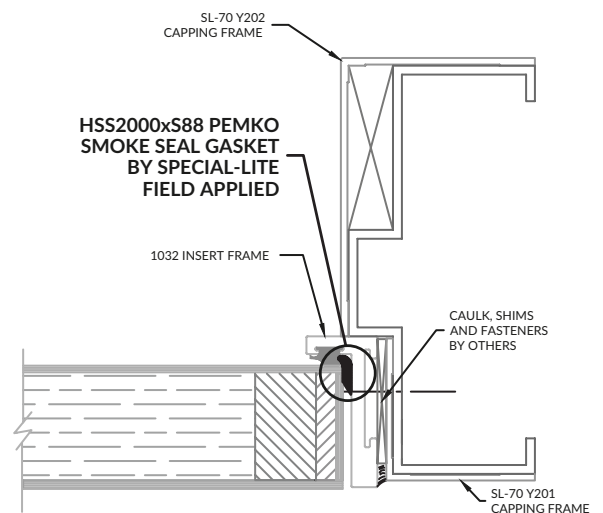
CONTINUOUS HINGE JAMB



CONTINUOUS HINGE JAMB WITH CAPPING



LOCK JAMB

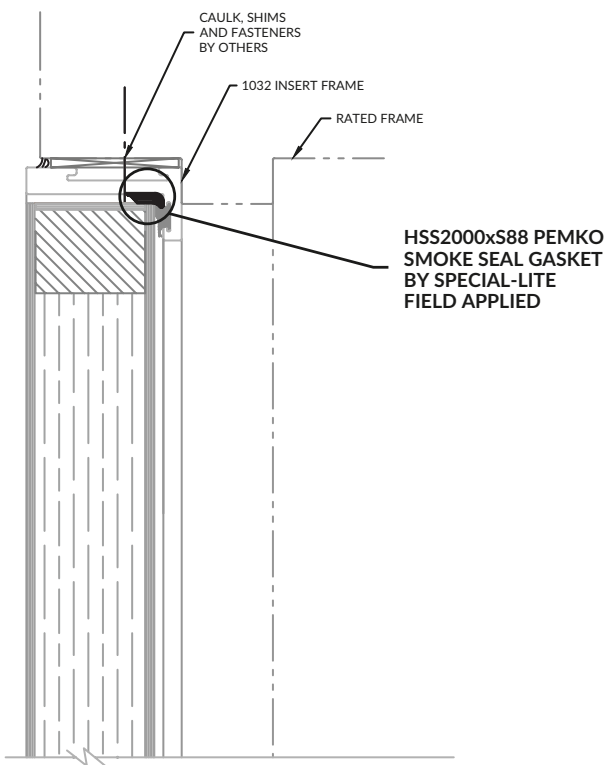


LOCK JAMB WITH CAPPING

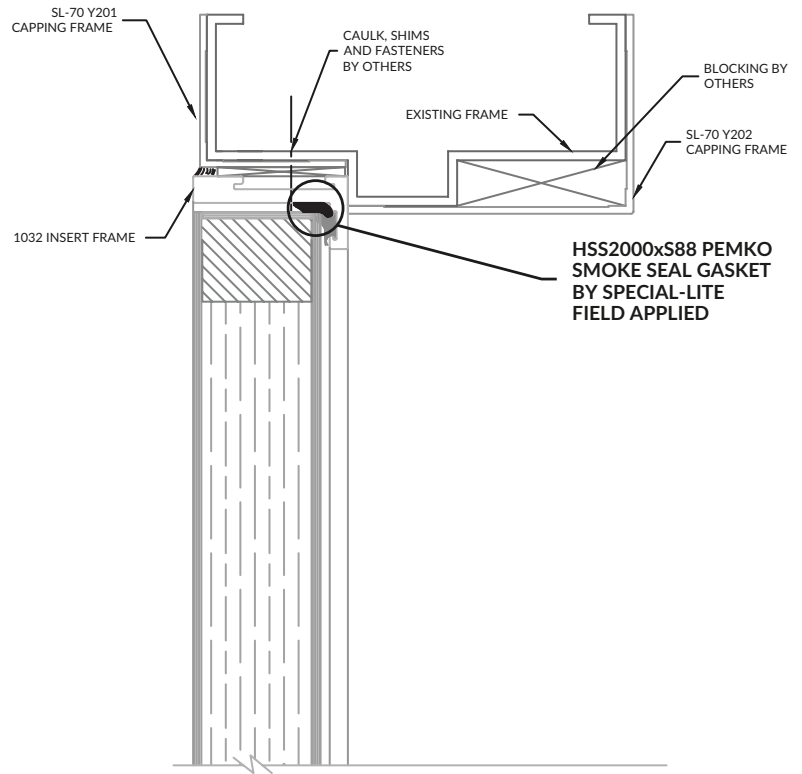
SLI-FR Series Doors | Insert Framing

Smoke Seal Application- 1032 Insert Frame and Capping (For Continuous Hinges)

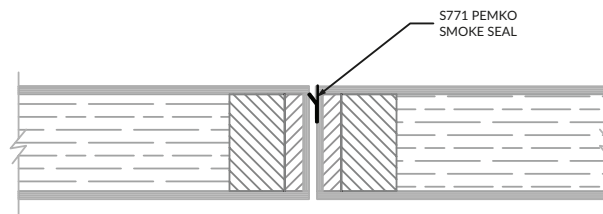
Pemko HSS2000xS88 smoke seal (or listed and labeled equivalent) must be applied to both jambs and header.
Pemko S771 smoke seal (or listed and labeled equivalent) must be installed between pairs.



DOOR HEAD DETAIL



HEAD DETAIL WITH CAPPING

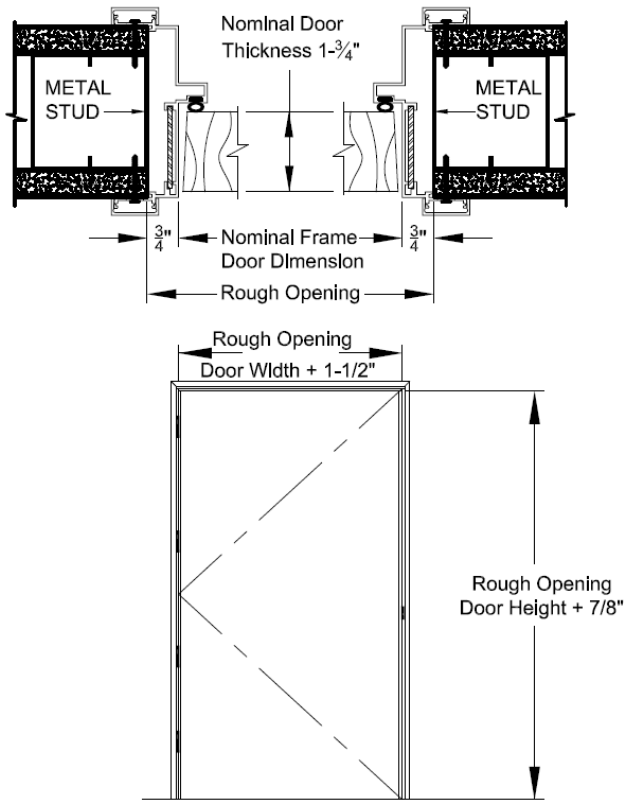


STANDARD MEETING DETAIL

SLI-FR Series Doors | OMEGA Framing

OMEGA DOOR FRAME ROUGH OPENING

1. Frames are fabricated to exact width and height specified and no clearance is built in.
2. Door rough opening should be minimum 1-1/2" (1-3/4" max) wider than the desired width and minimum 7/8" (1" max) higher for the height.
3. Determine the high side of the floor and cut jambs to desired height if necessary. Trim header vinyl 1-1/4" shorter than the length of the header. Jamb vinyl should be 1/4-1/2" max. Longer to allow for shrinkage over time.



DOOR FRAME INSTALLATION

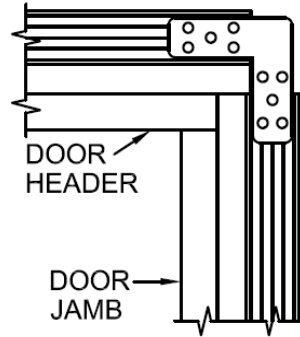
Recommended Fastener Application:

Use wood or metal drywall fasteners. For metal studs, use 1-1/2" "fine thread" drywall screws. For wood studs, use "coarse thread" drywall screws. Screws should penetrate studs 1/2". Screws start 2" from each end, 12" on center max.

4. Check opening for proper swing, then slip header over the wall.
5. Hold jambs at an angle and slip upper portion over the wall. Push upward to engage notch with door stop on header, then push the rest of the jamb over the wall. Note: when installing jambs, pull header seal clear of jambs and jamb seals clear of header and floor.
6. Slide butt jamb down to the finished floor. If the carpet is to

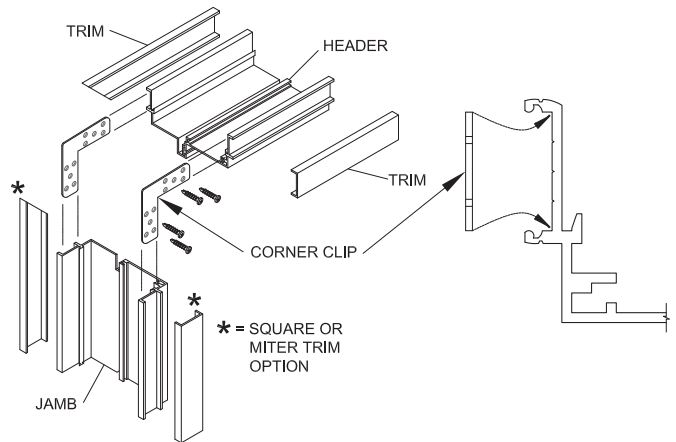
be laid, the base on which it is to be laid shall be considered the finish floor. For other floor coverings (tile, etc.) the jamb should rest on removable spacers on the same thickness as the flooring to be used.

7. Plumb butt side and secure to the wall. Back up into stud.
8. (A) Pull header down and install corner clips and secure header to wall.



(B) Pull strike jamb into position and align with corner clips. Secure to wall.

(C) Snap-on trim is supplied over length to allow for floor variations. Cut trim to required length and install. Trim should fit snugly. If there is any tendency to rattle, give full length a slight twist before installing.



9. Use a square to attain a 90 degree corner between head and jambs. Head must butt-up to vertical edge of corner clip and set flat in alignment groove.
7. Attach 4 corner clips per frame, using 1-1/2" drywall screws on steel studs (4 per clip/16 per frame).
8. Secure head to wall.

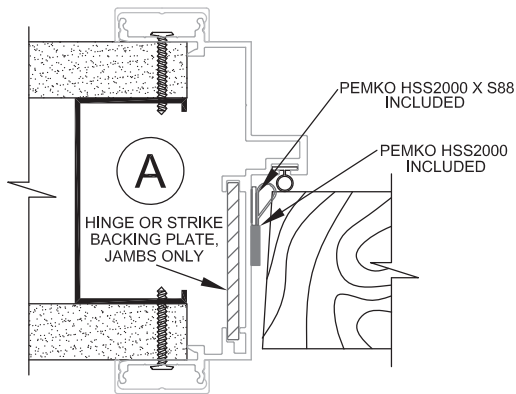
SLI-FR Series Doors | OMEGA Framing

HANG THE DOOR

IMPORTANT:

Hinge side trim must be installed before the door is mounted with hinges.

9. For installing doors with butt hinges, use a minimum of 2 screws per hinge. These screws must be at least 1-1/2" long and penetrate into steel stud behind reinforcements/
10. For installing doors with a continuous hinge, the hinge screws must be #12-24 x 1-1/2" and penetrate into steel stud behind frame.
11. Apply 2 rows of seal to the entire frame interior as shown. Smoke seal application details listed on the following page.



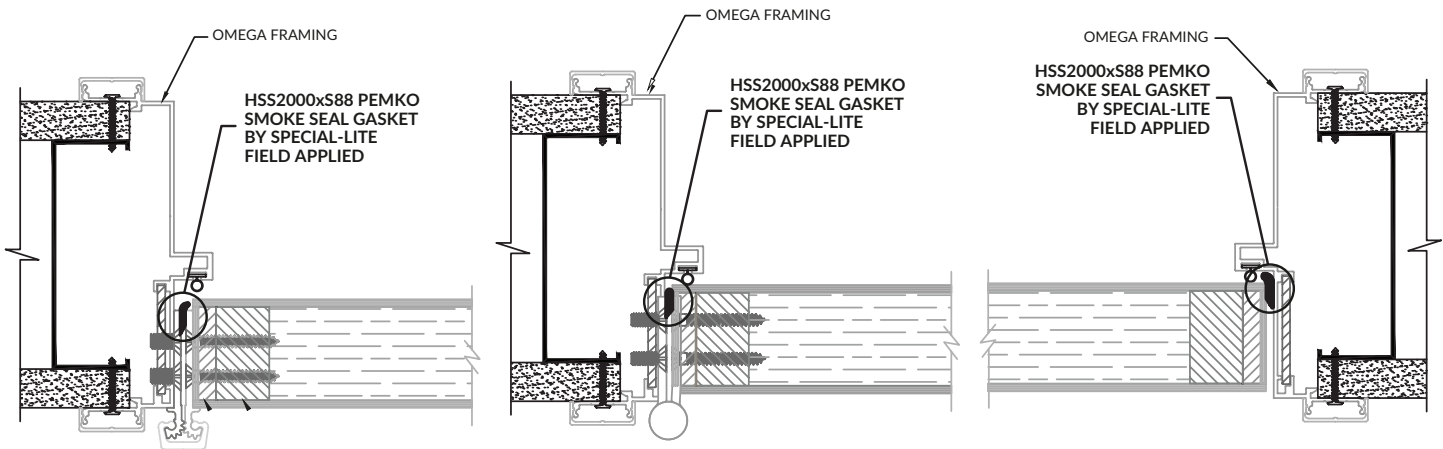
CLEANING

12. If it is necessary to clean the aluminum use water with a mild detergent. No abrasive agents should be used.

SLI-FR Series Doors | OMEGA Framing

Smoke Seal Application

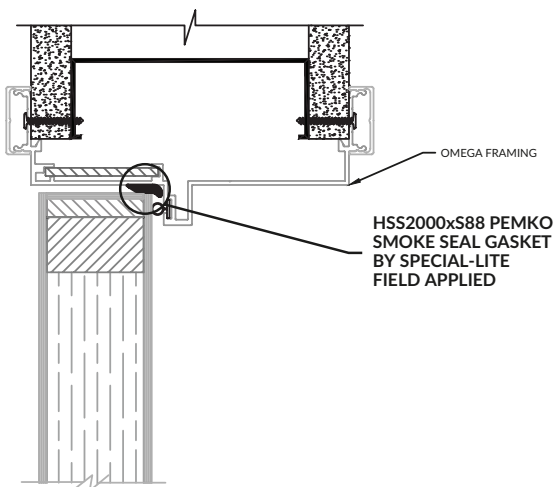
Pemko HSS2000xS88 smoke seal (or listed and labeled equivalent) must be applied to both jambs and header.
Pemko S771 smoke seal (or listed and labeled equivalent) must be installed between pairs.



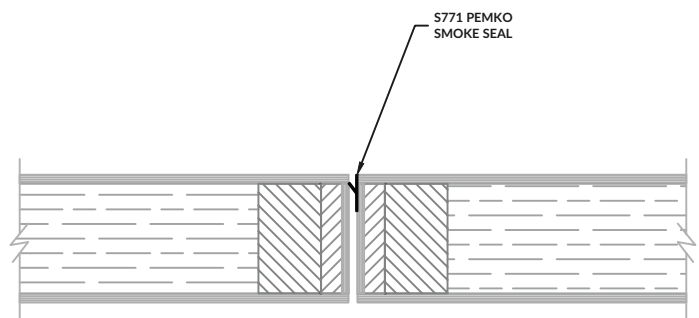
CONTINUOUS HINGE JAMB

BUTT HINGE JAMB

LOCK JAMB



DOOR HEAD



STANDARD PAIR