

## INSTALLATION INSTRUCTIONS

### FERCHE MILLWORK LAMINATED CORE 45, 60 and 90 MINUTE WOOD FIRE DOOR FRAMES

This frame has been labeled for compliance with UBC Std. 7-2 (1997) and does not require the application of an additional edge-sealing system.

#### Explanation of Listing Categories

##### Category “A” Doors – No Additional Edge-Sealing System Required

This category includes doors evaluated without an edge-sealing system between the door and frame. It also includes doors evaluated with a sealing system incorporated (concealed or visible) into the edge of the door by the licensed manufacturer or machining distributor. Meeting edges of pairs may require an astragal or an edge-sealing system. Please refer to individual door listing.

These doors are eligible for use in any Category C “Standard” frame. These doors may also be installed in frames listed in Category C, “Proprietary” frame in accordance with the frame manufacturer’s individual listing.

All doors listed in Category A are eligible to bear the “S” (for Smoke & Draft Control assemblies) if a listed Category “H”, “Smoke & Draft Control Gasket” has been applied to the assembly. Please refer to Category H for individual gasket manufacturer’s listings.

##### Category “B” Doors – Additional Edge-Sealing System Required

This category includes doors evaluated with an edge-sealing system (Category G) field-applied to the labeled frame or door. The application of the edge-sealing system does not require any machining of the frame or door. Please refer to Category G, “Edge-Sealing Systems” for individual manufacturer’s listings.

These assemblies are eligible for use in any Category C “Standard” frame. These doors may also be installed in frames listed in Category C, “Proprietary” frame in accordance with the frame manufacturer’s individual listing.

All doors listed in Category B are eligible to bear the “S” (for Smoke & Draft Control assemblies) if a listed Category “H”, “Smoke & Draft Control Gasket” has been applied to the assembly. Please refer to Category H for individual gasket manufacturer’s listings.

##### Category “C” Proprietary Frames

This category includes frames not based on ANSI-A155.1/UL-63 construction type (such as aluminum, wood, light gage steel, composite, etc.). These listings will reference specific door types for which each frame is qualified. All frames listed in this section may be used in Positive Pressure assemblies per the terms and limitations of the individual listing.

##### Category “C” Standard Frames

This category includes frames based on ANSI-A155.1/UL-63 and includes sidelight/transom assemblies. These frames are qualified for use in Positive Pressure assemblies, with Category A doors or with Category B doors utilizing Category G, “Edge-Sealing Systems”. These frames, when installed in pairs or in drywall construction, shall have anchors installed in the head section, minimum 24” O.C. These listings will not reference specific door types, as all door types are eligible.

##### Category “G” Edge-Sealing Systems

This category includes field-applied systems only. Category G, “Edge-Sealing Systems” are for use on Category B doors, or meeting edges (only) of Category A doors. These systems are surface-applied to either the perimeter of the door or frame, or meeting edge of the door. They may be kerf-applied, adhesive backed or mechanically fastened.

##### Category “H” Smoke & Draft Control Gasketing

This category includes gasket systems that are surface-applied (such as kerf-applied, adhesive-backed, or mechanically fastened) to frames or doors. It includes gasketing for the meeting edges for use in pair and double egress assemblies. Note: This category covers gasket systems that have been evaluated for use in positive pressure rated assemblies, but do not provide an edge-sealing system to the opening (see Category G). These gasket systems have been evaluated in accordance with UBC-7-2-97, Parts I and II.

##### Door Requirements:

Consult the door manufacturer to make sure that the doors are qualified for the type of hardware to be installed.

##### Wall Requirements:

Any rated, masonry wall, steel framed wall or wood framed wall. Minimum wall thickness : 4-5/8” Rough opening size for 45 or 60-minute frames (including the wood members listed in notes below).

2” (- 1/2”) wider than net opening width for the door. 1” (- 1/4”) taller than net opening height for the door.

Note: For masonry, a wood lumber buck frame shell is to be attached to masonry with 3/8” expansion masonry anchors, spaced 26” on centers maximum.

Note: For steel framed wall minimum 1/2” plywood to be attached to the steel opening with 1/2” maximum screws. This plywood is installed to provide screw holding capabilities for the frame anchors.

### **45, 60 and 90 Minute Design Limitations:**

Minimum jamb depth: 4-5/8"

Minimum rabbet for door: 1-7/8"

Minimum stop height: 1/2"

Minimum stop width: 1-1/4"

Maximum door size: 42" x 96" (45 Min), 48" x 96" (60/90 Min)

Hinges: Size and spacing to be in accordance with Table 2-4.3.1 of NFPA 80 1999, mortise type only.

Strikes: Per Templates for labeled latch sets, (including cylindrical, mortise or unit type), rim exit device, vertical rod fire exit devices, flush bolts and/or dead bolts.

### **45/60/90 Minute Frame Installation:**

Obtain any hardware item not supplied with your purchase (but required by these instructions) at your local door/frame hardware or building materials dealer.

If your 45/60 or 90 minute frame was supplied without casing trim, you may install any wood casing trim obtained from your local dealer.

To ease installation, it is recommended that all holes for fasteners through the frame and stop be pre-drilled before the fastener is inserted. Use 5/32" drill bits for #10 and 3/32" for #8 screws. Pilot holes from 65-70% of the fastener shank diameter are best.

If needed, the bottom of each jamb leg may be trimmed to fit the rough opening.

Place the header section into the dado at the top of each jamb leg. Drive two 2" long, #8 screws through pre-drilled holes going through the jamb side and into the head jamb.

Line rough opening in masonry wall with a wood buck frame using 3/8" expansion masonry anchors. Line rough opening in steel stud walls with a minimum 1/2" plywood using 1/2" maximum steel screws. Align and square the assembled frame within the prepared opening in the wall. Position shims at about 2" from the top and bottom to fill the opening between the hinge jamb and wall framing. Drive a 2-1/2" long, #8 dry wall screw immediately above or below each set of shims behind the stop of the frame. Do not completely tighten these screws until you are sure the shims have been adjusted to have the head within the width of the rough opening and the hinge jamb in plumb. Insert shims under top and bottom hinges and install the door to the frame at these locations only. Close the door to check and adjust for alignment of the door from the frame stops and for 1/8" maximum clearance for door. When alignment is satisfactory insert shims under the remaining hinge locations and install hinges. Drive and tighten 1-1/2" long, #8 dry wall screws under stop through head and jambs into framing. Drive one #10 x 3" screw into each hinge passing through the frame leg and into the wall stud. Recheck clearances and re-adjust as necessary.

Stops should be attached with minimum 1" long, minimum 15 ga. finishing nails 12" on center. Preposition the stops on the frame to allow for any required labeled gasketing with the doors in the closed position.

Install flush bolt, deadbolt and latch set strikes with #10 drywall screws passing through the frame and into the wall stud.

Check and adjust hardware to make sure door(s) are self-closing and self-latching.

Break or saw off any shims that extend beyond the frame or wall on each side of the assembly. Fill the area between the frame and wall with either acrylic latex caulk or silicone caulk to a minimum depth of 1/4" (See drawings).

Install the casing trim on each side of the wall to the buck framing or to the jamb using finish nails.

### **Per NFPA 80, job site modifications are restricted to the following:**

1. Circular or rectangular function holes for latch bolts.
2. Prepping area around function holes for strike plates.
3. Installing gasketing or seals to the frame if required.

### **Labeling**

Manufacturer's label shall not be removed, covered or painted over. After completion of machining the frame, the Warnock Hersey (WH) certification label shall be applied to the finished frame with screw-type nails with a minimum length of 5/8", or with minimum 18 gage staples with 1/4" crown and 5/8" leg length. If staples are used, two staples (one at each end of the label) shall be applied.