

FIRE RATED FLOOR DOORS (FHD)

INSTALLATION AND MAINTENANCE GUIDE | 14I-250

GENERAL:

Floor doors are designed for safe ingress to access equipment and spaces. Floor doors are not intended to be used as a means of egress. These instructions are general guidelines and recommendations intended to maintain the fire rating capability of the door.

Check with the local authority having jurisdiction for any additional installation requirements before installing.

Please read and follow all installation, maintenance and safety instructions for all the following applications before installing or using this door.

This door is for use in dry locations only. Under no circumstance shall this door be exposed to wet conditions (rain, snow, etc.) when shipped or stored and during or after installation. The floor door must be stored flat in a clean, dry interior location.

The floor system design and structural integrity must be maintained. It is advised to seek engineering consultation when necessary.

Under no circumstance is the door flange to be used as the final structural support.

Inspect all shipments and materials for missing or damaged components. Report immediately, and file a freight claim. If you sign for products without reporting you will be responsible for replacement costs.

SAFETY INSTRUCTIONS:

All persons installing and/or using this door are asked to read and be fully apprised of all instructions and precautions regarding this product.

CAUTION: The floor door cover is spring loaded. Standard precautions should be taken when handling. Be sure the floor door is in a horizontal, upright position prior to opening cover.

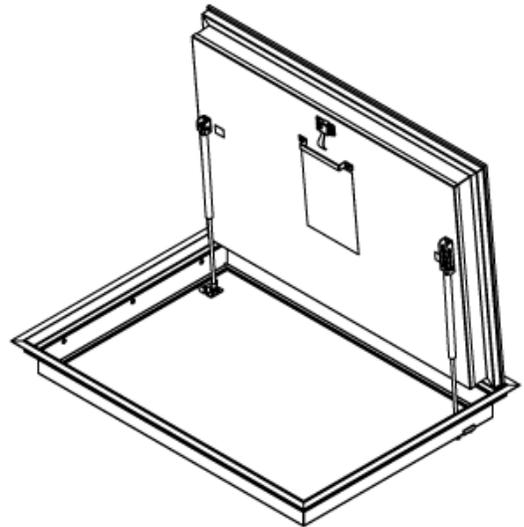
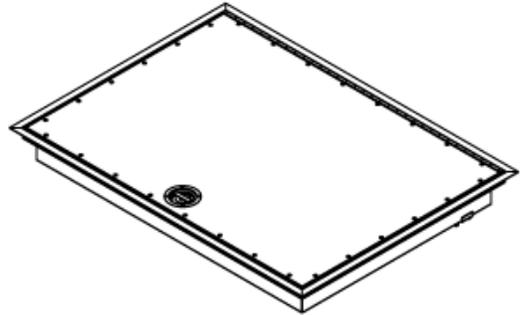
The gas springs supplied with this unit are under high pressure and are not serviceable. Under no circumstance should one try to open the gas springs. Severe injury can occur to anyone in the surrounding area.

- Do not paint, nick, scratch, tape or lubricate the gas spring rod.
- Do not dispose of the gas spring by incinerating.
- Do not use gas spring as handles to enter and exit the floor door.

Ensure no lateral forces are applied to the gas spring during extension. A bent rod will cause premature failure and may allow the door panel to come down in an uncontrolled descent, resulting in injury. Bent gas springs are not covered by warranty. The piston rod normally points downward to ensure lubrication of the seal unless otherwise indicated.

FIRE RATING:

Fire rated floor doors are fire tested and labeled to NFPA 288, Standard Methods of Fire Tests of Floor Fire Door Assemblies Installed Horizontally in Fire Resistance Rated Floor Systems, as required by International Building Code. The floor door is supplied with a self closing mechanism that automatically closes an open door in the event of a fire. When self-closing per NFPA 80 is not required by AHJ, request no self-closing mechanism option.



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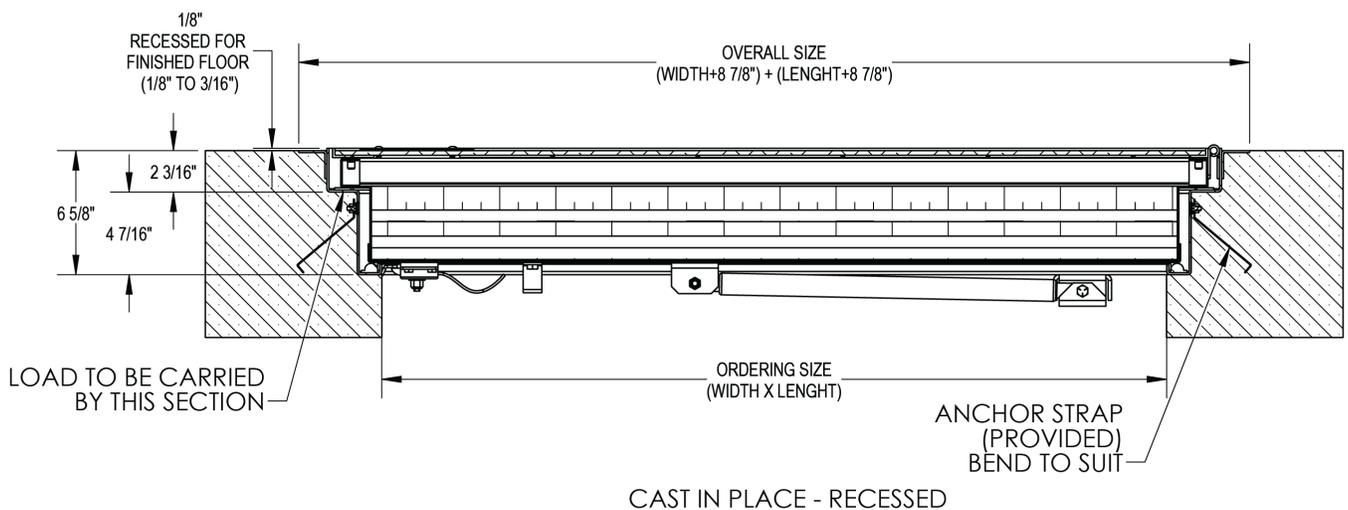
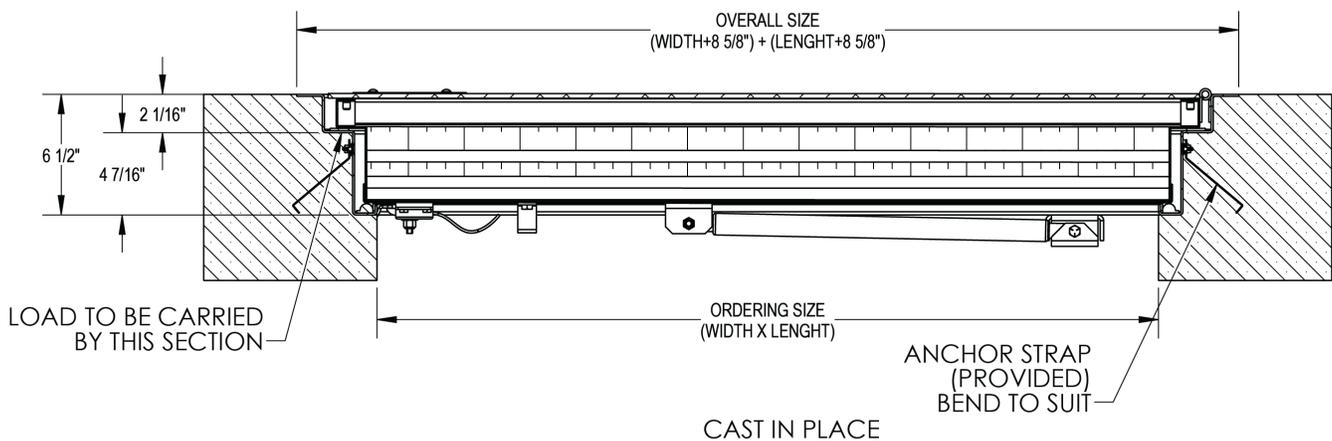
CAST IN PLACE INSTALLATION:

Cast or Pour In Place Installation in concrete with provided masonry anchors (bend to position as required).

The floor door frame is 6-1/2" depth for the 1 hour, 2 hour and 3 hour ratings and requires a minimum floor depth of 6-1/2" for cast in place installations. Verify that the outside floor door frame has a coating to protect the aluminum from reacting with wet concrete.

Support the Fire Rated Floor Door as needed prior to pouring concrete and while curing. Do not rack or twist the frame when setting the unit. Ensure that the floor door is square and straight with the cover in the closed position, prior to pouring concrete. Block up and shim the frame as necessary to ensure the door panel rests evenly on the inner frame gasket on all four sides as indicated in the appropriate diagram (LOAD TO BE CARRIED BY THIS SECTION). **Under no circumstance is the door flange to be used as the final structural support.**

Pour concrete to finish flush with the top edge of the unit, making sure to protect/clean any excess concrete to prevent staining on aluminum surfaces. Ensure all voids are filled. Allow the concrete to fully cure (up to 7 days) before operating.



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RETROFIT #1 INSTALLATION:

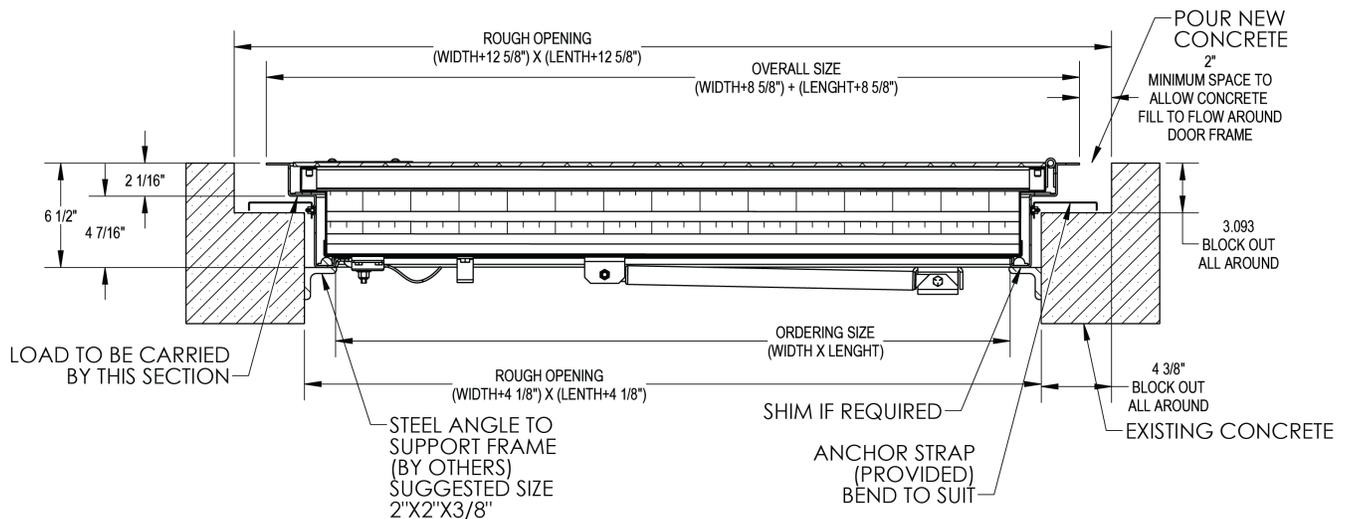
Back-Pour with Support Angle in concrete with provided masonry anchors (bend to position as required).

The floor door frame is 6-1/2" depth for the 1 hour, 2 hour and 3 hour ratings and requires a minimum floor depth of 6-1/2" for cast in place installations. Verify that the outside floor door frame has a coating to protect the aluminum from reacting with wet concrete.

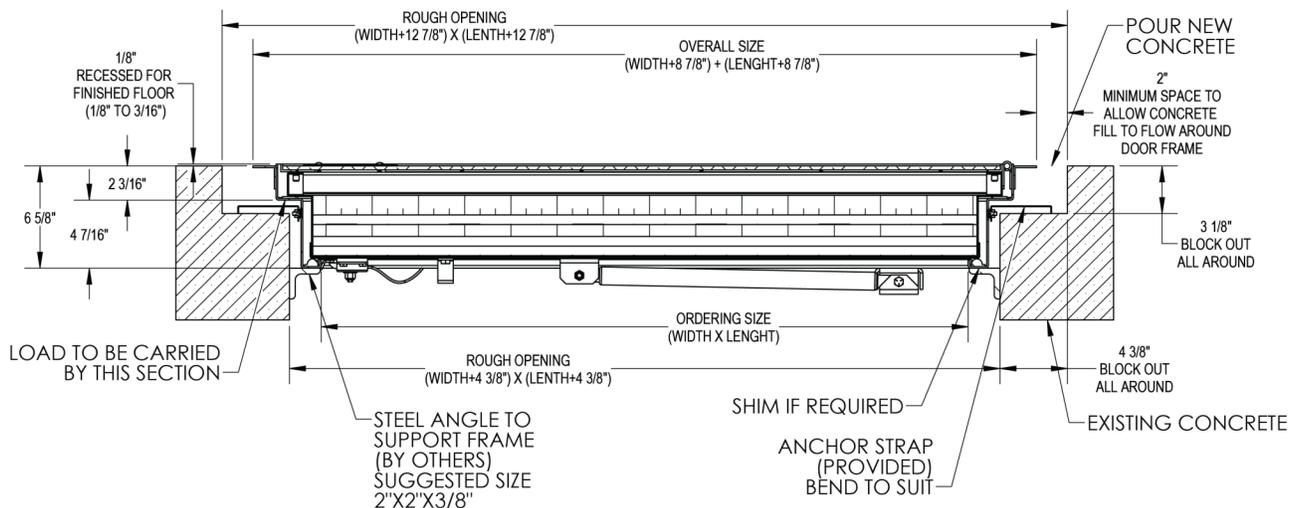
Provide a rough opening as shown in the appropriate diagram. Use existing and additional reinforcing as required to support the live load capacity of the Fire Rated Floor Door in its final position. **Under no circumstance is the door flange to be used as the final structural support.**

Block the underside of the opening with a steel angle, (2"X2"X3/8" recommended provided by others), to support the floor door and provide a stop when pouring concrete around the door frame. Do not rack or twist the frame when setting the unit. Ensure that the floor door is square and straight with the cover in the closed position, prior to pouring concrete. Block up and shim the frame as necessary to ensure the door panel rests evenly on the inner frame gasket on all four sides as indicated in the appropriate diagram (LOAD TO BE CARRIED BY THIS SECTION).

Pour concrete to finish flush with the top edge of the unit, making sure to protect/clean any excess concrete to prevent staining on aluminum surfaces. Ensure all voids are filled. Allow the concrete to fully cure (up to 7 days) before operating.



RETROFIT #1



RETROFIT #1 - RECESSED

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RETROFIT #2 INSTALLATION:

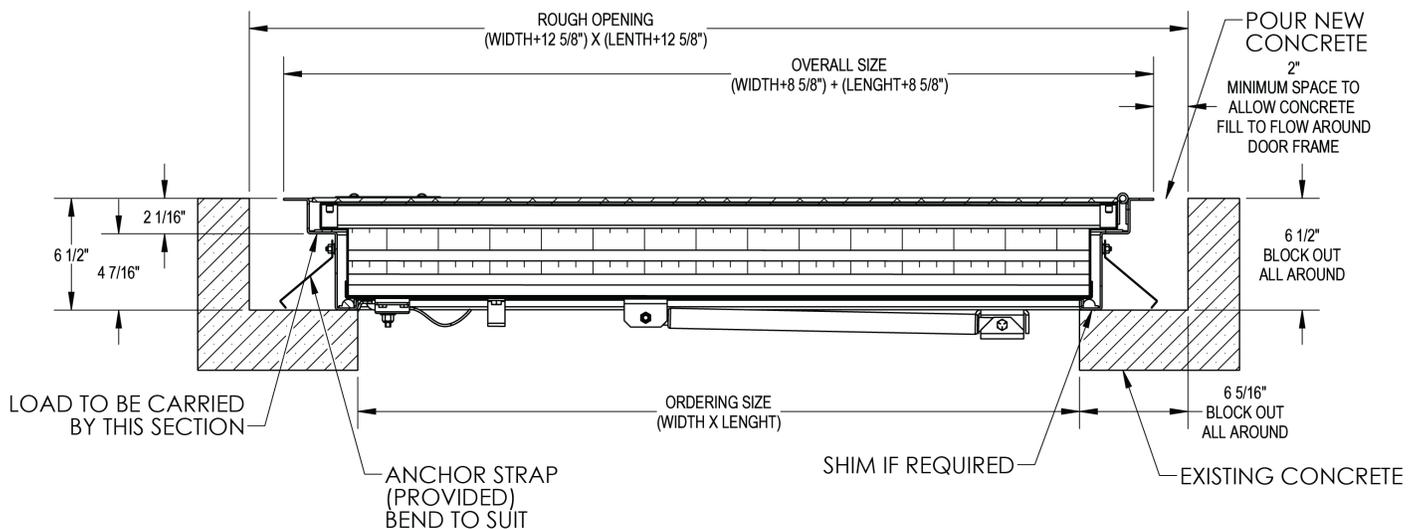
Back-Pour in concrete with provided masonry anchors (bend to position as required).

The floor door frame is 6-1/2" depth for the 1 hour, 2 hour and 3 hour ratings and requires a minimum floor depth of 6-1/2" for cast in place installations. Verify that the outside floor door frame has a coating to protect the aluminum from reacting with wet concrete.

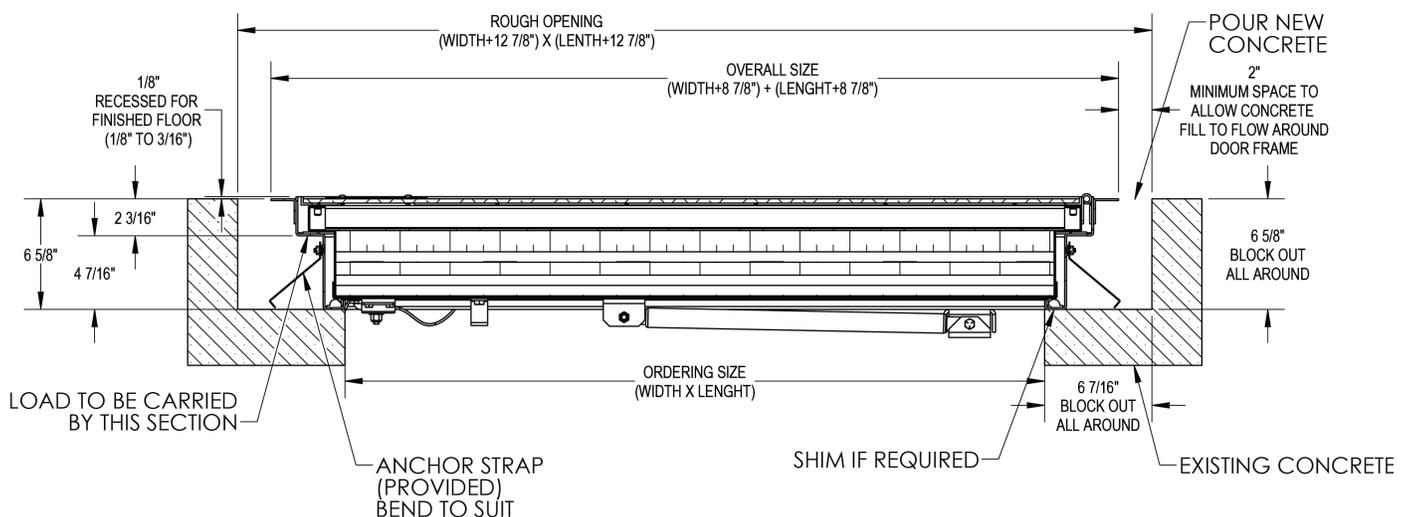
Provide a rough opening as shown in the appropriate diagram. Use existing and additional reinforcing as required to support the live load capacity of the Fire Rated Floor Door in its final position. **Under no circumstance is the door flange to be used as the final structural support.**

Do not rack or twist the frame when setting the unit. Ensure that the floor door is square and straight with the cover in the closed position, prior to pouring concrete. Block up and shim the frame as necessary to ensure the door panel rests evenly on the inner frame gasket on all four sides as indicated in the appropriate diagram (LOAD TO BE CARRIED BY THIS SECTION).

Pour concrete to finish flush with the top edge of the unit, making sure to protect/clean any excess concrete to prevent staining on aluminum surfaces. Ensure all voids are filled. Allow the concrete to fully cure (up to 7 days) before operating.



RETROFIT #2



RETROFIT #2 - RECESSED

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WOOD FRAMING INSTALLATION:

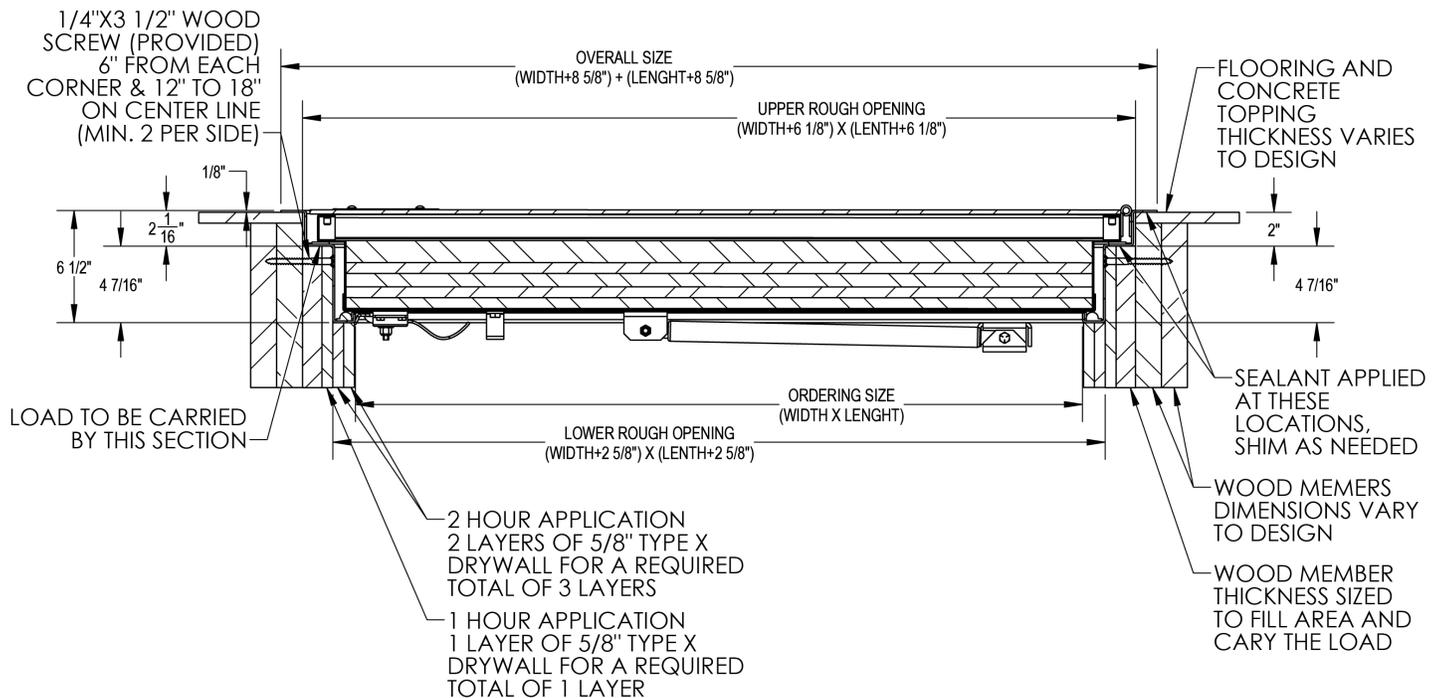
Wood Framing Installation with provided fasteners and sealant.

The floor door frame is 6-1/2" depth for the 1 hour and 2 hour ratings and requires a minimum floor depth of 6-1/2". Floor framing shall be constructed to local or national building codes and built to carry the weight of the door and its live load capacity.

Provide a rough opening as shown in the appropriate diagram. **Under no circumstance is the door flange to be used as the final structural support.** Provide wood blocking as shown. **The screws are not designed to carry the live load.** Drywall must be applied as indicated in the drawing to protect the wood framing. For a 1 hour rating: 1 layer of 5/8" Type X drywall is required. For a 2 hour rating: 3 layers of 5/8" Type X drywall are required.

Do not rack or twist the frame when setting the unit. Be careful not to twist or pull the frame to one side. Ensure that the floor door is square and straight with the cover in the closed position. Block up and shim the frame as necessary to ensure the door panel rests evenly on the inner frame gasket on all four sides as indicated in the appropriate diagram (LOAD TO BE CARRIED BY THIS SECTION).

Seal the door frame and flange to the wood framing with the provided ARTV (silicone) sealer supplied with this door. Attach frame to the opening using the provided 1/4" x 3-1/2" long wood screws. The door frame shall be fastened directly and securely through the pre-drilled with mounting holes into the frame on all four sides.



WOOD INSTALLATION

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WOOD FRAMING INSTALLATION—RECESSED LID:

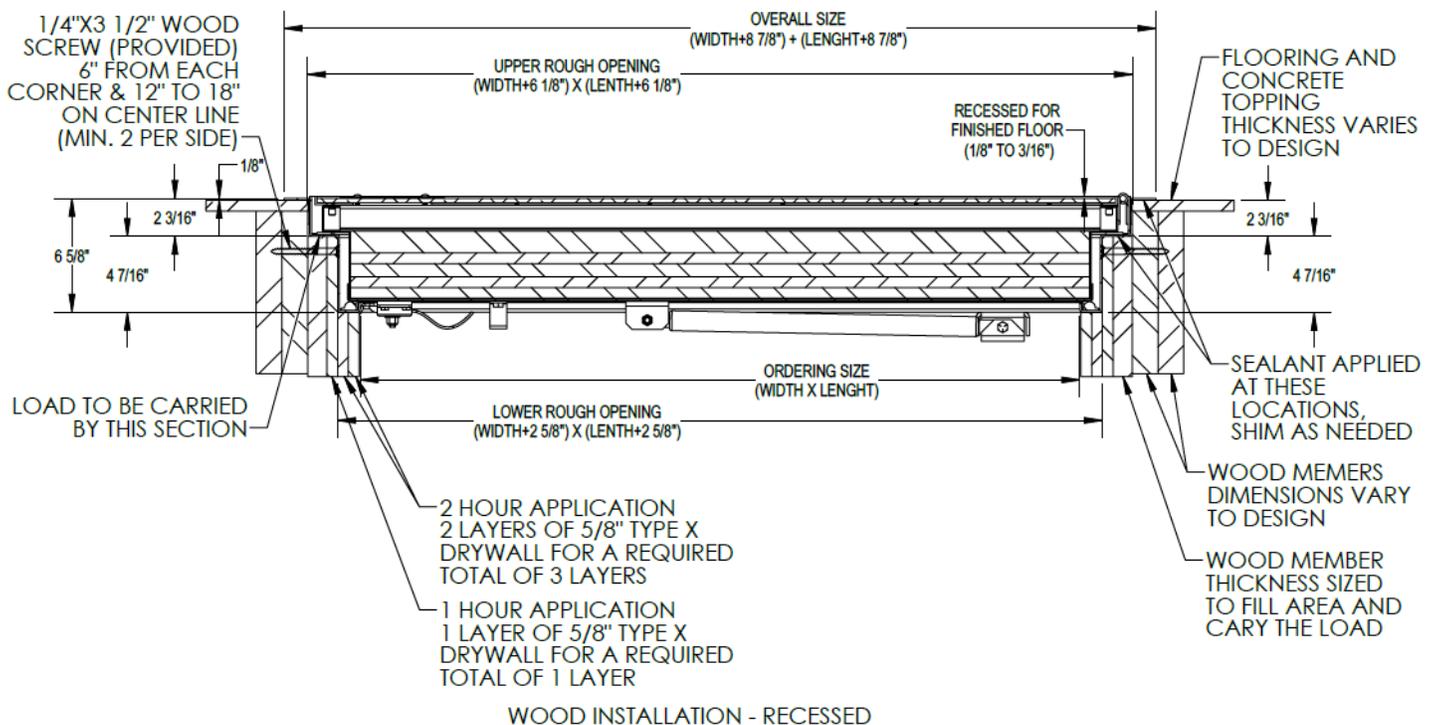
Wood Framing Installation with provided fasteners and sealant.

The floor door frame is 6-1/2" depth for the 1 hour and 2 hour ratings and requires a minimum floor depth of 6-1/2". Floor framing shall be constructed to local or national building codes and built to carry the weight of the door and its live load capacity.

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OPERATION:

The basic components for floor door are the outer frame and door frame which are connected with a hinge. An included latch is used to release and open the door with the assistance of gas springs. The latch may be covered with a removable cap or plug.

CAUTION– Door will shut automatically in the event of fire. Door will close quickly and unexpectedly.

To open the door from above:

- Removable Tool: Remove plug with slotted end of provided L-handle. Insert keyed end of L-handle into socket and turn counter clockwise until latch releases. Lift up on door simultaneously using provided handle.
- Recessed Handle: Lift D-ring and turn counter clockwise until latch releases. Lift up on door simultaneously with D-Ring.
- Mortise Lock and Detention Lock: Remove center of brass cover with appropriate bladed tool. Insert key into cylinder and release latch. Lift up on door simultaneously using provided handle.

To close the door from above:

- For all latches, slowly close the cover making sure the slam latch engages the catch.

To open the door from below:

- Removable Tool and Recessed Handle: Press spoon handle to the side. Lift up on door simultaneously using provided handle.
- Mortise Lock: Turn Wing Nut clockwise. Lift up on door simultaneously using provided handle.
- Detention Lock: Turn T-Handle clockwise. Lift up on door simultaneously using provided handle.

To close the door from below:

- For all latches, slowly close the cover using the provided handle making sure the slam latch engages the catch.

MAINTENANCE:

An alkyd base primer has been applied at the factory to all steel components. It is recommended that an alkyd base enamel finish coat in the desired color be applied after installation. Additional coatings should be applied when needed to ensure maximum service life.

It is recommended to operate the floor door at least once a year to check functionality of moving parts such as latches and hinges. Lubricate these moving parts with a silicone spray as needed. **Do not lubricate the rods of the gas springs.**

The high temperature gasket supplied with this unit should be checked regularly to make sure it is in proper condition and has not come loose in any location. If it is deteriorated or has come loose, the gasket can be replaced. Contact customer service for replacement gasketing.

REPLACEMENT PARTS:

Contact customer service for specific replacement parts based on your Fire Rated Floor Door.

List of Available replacement parts:

Slam Latch and Hardware	Brass Cover Plate
Recessed Handle and Hardware	Lift Handle
Removable Tool Operator Assembly and Hardware	Grab Handle
Removable Tool L-Handle	Upper Rectangular Gasket
Detention Lock	Lower Tadpole Gasket
T-Handle Operator	Gas Springs and Hardware
Wing Nut Operator	Inline Self Close Assembly
Steel or Aluminum Plug	Right Angle Self Close Assembly