babcockdavis®

Installation, Operation + Maintenance Manual

FLOOR DOOR, 1/8 INCH PAN ARCHITECTURAL

Model: BFDRP

The Architectural Recessed Floor Door is engineered with a recess to allow for 1/8 inch VCT (vinyl composite tile) flooring infill. This design preserves the architectural aesthetics while maintaining a minimal sight line.

Introduction + Safety

Please read the complete instructions carefully before beginning any work. To ensure proper installation and performance of the product, the following actions must be completed by the installing contractor. Failure to do so will affect product warranty.

GENERAL SAFETY PRECAUTIONS Improper selection, installation, or use can cause personal injury or property damage. It is solely the responsibility of the user, through its own analysis to select products suitable for their specific application requirements, ensure they are properly maintained, and limit their use to its intended purpose. Follow proper local, state and federal regulations for proper installation and operation requirements.

Transportation + Storage

- Inspect all shipments and materials for missing or damaged components and hardware.
- Floor doors are shipped with the intent for installation within 30 days. If storage is required, ensure the floor doors are stored covered and indoors. If stored outside, the floor door frames can expand and contract causing the protective epoxy coating to crack and chip. If this occurs, reapply an epoxy coating before installation.
- Do not store floor door outside. If storage is required, ensure the floor doors are properly covered and stored in a clean, dry location indoors.

Preparation

- Locate the packing slip(s) and/or shop drawings.
- Verify that all products listed on the packing slip are included in the package.
- Check the products for damage. If products are damaged, report a freight claim immediately and leave the products in their packaging. If you sign for products without reporting damage you waive your right to a freight claim and will be responsible for their replacement cost.
- Read the instructions thoroughly before beginning installation.

Tool List

- Utility knife
- Wrench, 3/4 inch
- Adjustable wrench
- Lubricant, silicone spray

Preinstallation

WARNING: Floor Door is SPRING LOADED. Do NOT open in upside down position

- Orient the floor door in an upright position as shown. **See Figure #1**. This is the correct position to handle the floor door.
- Visually inspect slam latch from the underside to ensure latch bolt is engaged over frame. **See Figure #2**.
- Cut plastic tie wrap and remove envelope.

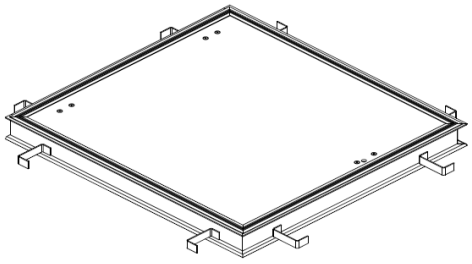


Figure #1

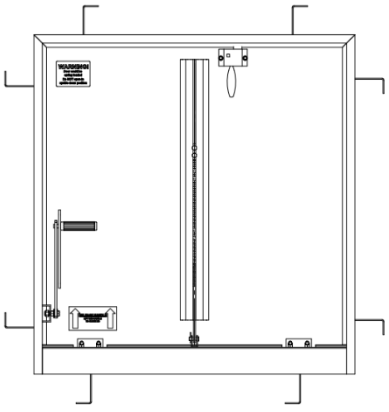


Figure #2

INSTALLATION

Concrete pour in place (See Figure #3).

1. Special care is required when handling and installing floor doors. Please make sure that all framework and doors are supported during transport and installation to ensure against bending or racking of the floor door.

2. Floor door frames are provided with concrete anchors. Bend the anchors away from the frame at a 90 degree angle prior to installing the units.

3. Set the units into position over the desired opening area. The inside opening of the frame is the “opening size” (a 48 x 48 inch floor door has an inside opening of 48 x 48 inches). Secure the floor door into the desired area with welding, bolting or other anchorage, making sure not to interfere with the operation of the door.

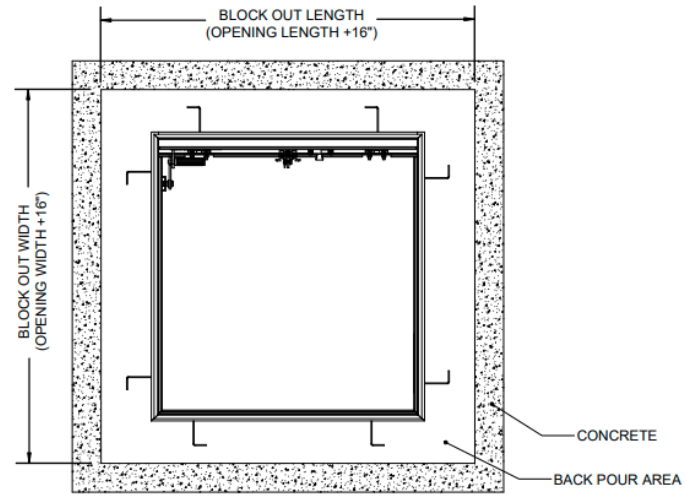
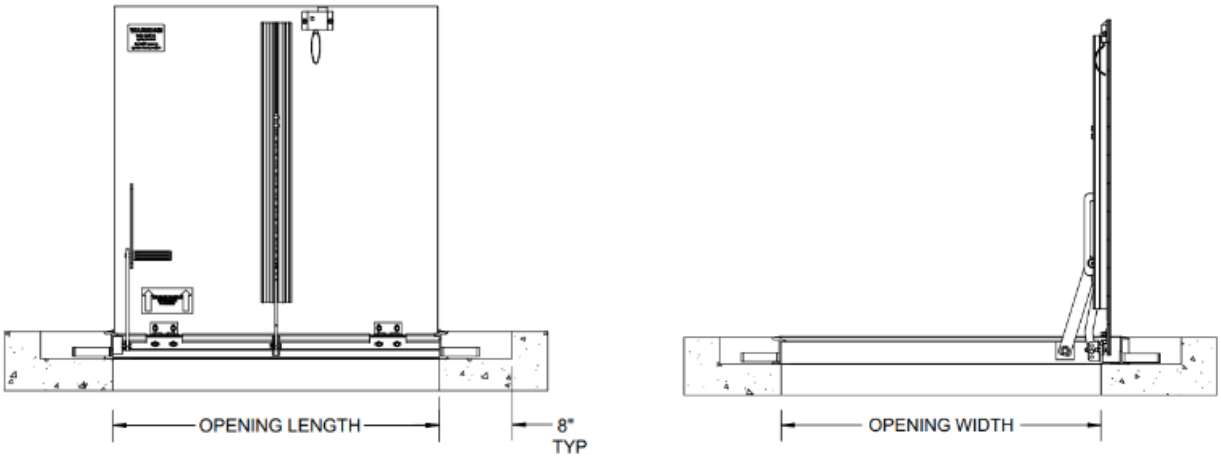


Figure #3



4. To ensure a good quality installation and prevent staining, alkaline building materials such as wet concrete should be removed quickly from aluminum surfaces. Babcock-Davis recommends providing temporary protection such as a vinyl covering to protect finished surfaces during construction.

5. Pour concrete to the top edge of the frame, leveling to finish flush with the top of the flange of the floor door. Allow the concrete to cure for 7 days prior to operating the floor door. Operating the unit prior may crack the concrete.

6. After 7 days, open the door(s) and inspect the unit for excess concrete that may have seeped or fallen into the hinges, latch, gutter or other areas. Remove any concrete to ensure smooth operation.

7. At this point, you may have to adjust the spring packages with a 3/4 inch open end wrench. The springs have an adjustment bolt on the spring rod near the bottom of the spring housing. The springs may have been adjusted down to remove any undue stress on the frame during transport. Tighten the bolts until the tube is within 1/8 inch of the door bracket. DO NOT OVER ADJUST. Over adjusting will cause the spring to "bottom out" when closing the door. If the door does not close all the way, DO NOT FORCE IT SHUT. Adjust the springs down (more gap between the tube and door bracket). Try the door again and adjust springs again as necessary.

Engage Springs

NOTE: *Large units with two or more springs per door may be shipped with the spring loose within the housing. These springs must be secured in place before operating the door.*

a. Manually open the door to the 90-degree position. The hold open arm (HOA) will automatically hold the door open.
b. While in the 90-degree position the spring should settle on the plate at the bottom of the housing.
c. Slide the top spring plate **(Figure #4)** down until it touches the top of the spring. Using a 1/2 inch wrench tighten the two hex head screws.
d. Disengage the hold open arm to test the closing and opening operation. The door should slowly begin to close requiring assistance to fully shut.

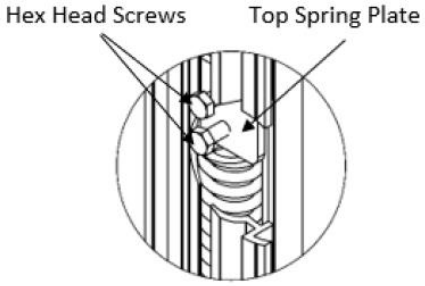


Figure #4

Adjust spring tension (optional)

NOTE: *Tension is factory set. Adjust only if field conditions require more or less tension.*

a. Open the door to the 90-degree position, the HOA will automatically hold the door open. The spring link bracket **(Figure #5)** allows spring tension adjustment by changing the position of the cotter pin link connection. The lowest position puts the least amount of tension on the spring.

b. First, disengage the spring by loosening the two hex head screws at the top of the spring **(Figure #4).**

c. Remove the cotter pin and move the spring link into the desired position. Replace the cotter pin and re-tighten the hex head screws.

Figure #5

INSTALLATION

Bolt in place existing openings

NOTE: Floor doors built for bolt-in installation are provided with predrilled holes in the frame on the non-hinged sides and 2 inch by 2 inch welded angle tabs on the hinge side frame that have clearance holes for 5/16 inch hardware. ***See Figure #6*** *on page 6.* ***All mounting hardware is provided by others.***

1. Mark Drill Hole Locations
    a. Set the door into the desired opening area, mark where fastener holes are located on the mounting surface.

2. Drill Holes in Mounting Surface
    a. Remove the floor door and drill holes into the mounting surface at the marked locations.

3. Secure Floor Door to Mounting Surface
    a. With two or more people, hold the floor door in place and secure to the mounting surface with bolts. (For existing concrete openings, 5/16 inch anchor bolts are recommended. For existing wood openings 5/16 inch lag bolts are recommended).
    b. Bolt-In floor doors are sized to allow for 1/4 inch clearance on all sides to accommodate any out of squareness of the opening. Fill any remaining gaps with backer rod and sealant after securing the floor door in place.

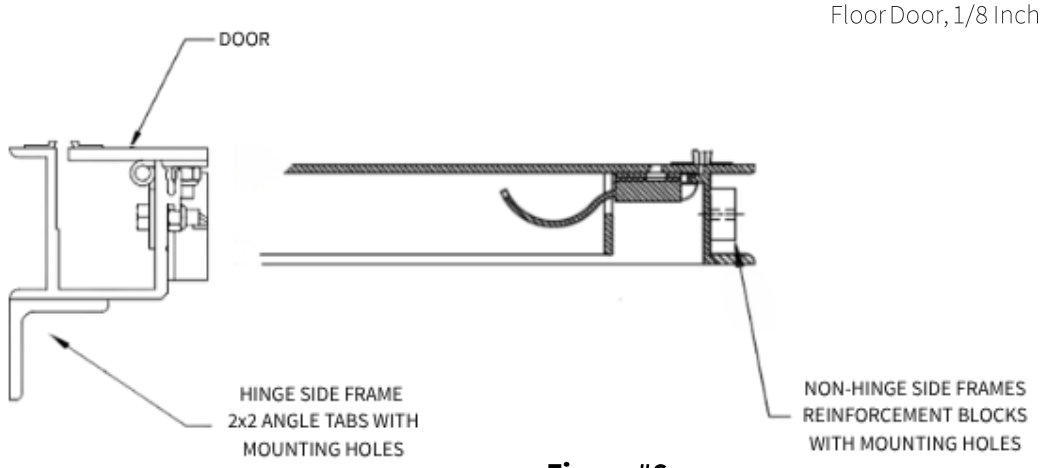


Figure #6

Engage springs. See Spring Engagement instructions on page 4.

OPERATION

Floor doors are designed for long-lasting, dependable access. They are manufactured from steel, aluminum or stainless steel and come standard with stainless steel hardware components.

Key components that support door operation include turn-handle latches, compression springs, stainless steel hinges and a locking hold-open arm, as detailed below:

- Latch: Slam latch with interior rotating handle and exterior L-handle key (FD-KIT-KEY)
- Drop down lifting handle
- Spring: Compression springs to ensure ease of opening and closing during use.
- Hinge: Stainless Steel hinges.
- Hold Open Arm: Locking hold open arm automatically engages and locks when the door fully opens. The hold open arm must be engaged in the locked position to ensure that the door does not close unintentionally. Pull the red vinyl grip handle to unlock and safely close the door.

When opening the floor door cover, use the slam latch L-handle key and rotate the slam latch. The cover will unlatch and spring open slightly. Use the lift handle from the top of the cover to fully pull open the door(s) until the hold open arm engages to lock the cover in the 90 degree open position.

When closing the floor door cover, pull the red grip handle on the hold open arm forward to disengage and gently lower the cover. Slam the door slightly to ensure proper latch engagement. For double doors be sure to close the door with the slam latch last.

MAINTENANCE

Floor doors should be manually operated once a year to check performance.

- Lubricate moving parts such as springs, hinges, and latches with a silicone spray lube as required to maintain a smooth opening and closing of the door. Do not over grease. Do not use regular lubricating oil as it can attract dust and grit.
- Non-moving parts can be cleaned with a mild soap or dishwashing detergent and water solution.
- Gaskets can be cleaned with a clean, damp, lint-free cloth. Do not apply mineral oils, vinyl dressings, or other lubricants to the gasket as they can cause the gasket to break down over time.
- If any questions arise during the operation or maintenance of the products, please feel free to call technical assistance, 1-888-412-3726.

- If floor doors are installed in corrosive environments, such as environments exposed to salt water and or hydrogen chloride, it is recommended to replace stainless steel hardware components every 5 years.

QUESTIONS?

For more information on installation, repair or replacement, please contact Customer & Sales Support at 888-412-3726 or visit babcockdavis.com