Model(s): FDPPA

**Overview**

Floor Door products are designed and built for years of convenient and weather tight access for personnel as well as equipment. The following are general instructions for installing, operating and maintaining floor door products. These are recommended general guidelines only. Locally accepted installation, sealing practices and procedures should be followed to ensure the ultimate weather-ability of floor doors installed into various types of flooring systems.

*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 insure against bending or cracking of the floor door.*

**CHECK SHIPMENT FOR PARTS SHIPPED LOOSE FOR FIELD INSTALLATION**

Please inspect and set aside parts for later installation

* Anchor bolts and hardware
* Pneumatic Spring

**STORAGE PRIOR TO INSTALLATION**

* Floor doors are shipped with the intent for installation within 30 days.
* If storage is required, insure the floor doors are stored flat, covered and indoors.
* If stored outside, the floor door frames can expand and contract causing the protective coating to crack and chip.
* If the units are stored outside and the result is cracked primer, a primer coat must be re-applied before the unit is cast-in concrete. *Scrape and clean the affected surface and applying Rust-Oleum prior to installation.*

**FRAME INSTALLATION INSTRUCTIONS FOR CONCRETE POUR IN PLACE**

1. Attach the anchor straps
	1. The concrete anchors, bolts and nylon lock nuts are shipped loose and must be attached prior to installation.
	NOTE: You will need two wrenches to install the anchors
	2. Position the anchor over a pre-drilled hole and insert the bolt from the inside of the frame through both the frame and anchor.
	3. Use one wrench to hold the bolt in place and the second wrench to tighten the nylon lock nut.
	4. Repeat step 3 with each anchor strap
2. ****Set the frame in the opening.
*NOTE: The outside opening of the frame is the “opening size”.*
	1. Secure the floor door into the desired area with welding, bolting or other anchorage, making sure not to interfere with the operation of the hatch.
3. Square the frame
	1. It is vital that the frame remains square during the concrete pour.
4. Protect exposed aluminum from wet concrete
	1. To ensure a good quality installation and prevent staining, alkaline building materials such as wet concrete should be removed quickly from aluminum surfaces.
5. Pour concrete
	1. Pour concrete to the top edge of the frame, leveling to finish flush with the top 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.
	2. After the 7 days allowed for concrete curing, open the door(s) and inspect the unit for excess concrete that may have seeped or fallen into the hinges, or latch. Remove any concrete to ensure smooth operation.
6. Install the spring(s)
	1. The door must be manually held open in the 90-degree position during spring installation. The spring, once installed, will automatically hold the door open.
	2. The spring should be installed with the gas cylinder end attached to the door and the rod end attached to the frame.
	3. While the door is open, snap the gas cylinder end into the ball stud bracket on the door the snap the rod end to t the ball stud bracket on the frame.
7. Fill the 1 inch pan
	1. Pour the concrete, or secure the tile or wood flooring to the pan.

**FRAME INSTALLATION INSTRUCTIONS FOR BOLT-IN PLACE**

*NOTE: Floor doors for existing openings are provided with 3/8 inch diameter holes. All mounting hardware is provided by others.*

1. Set the Frame in the opening
	1. Set the door into the desired opening area and mark where fastener holes are located on the mounting surface. For existing concrete openings, 5/16 inch anchor bolts are recommended. For existing wood openings 5/16 inch lag bolts are recommended.
2. Drill the holes in the mounting surface
	1. Remove the floor door and drill holes into the mounting surface at the marked locations.
3. Secure the floor door to the mounting surface
	1. With two or more people, hold the floor door in place and secure to the mounting surface with bolts (provided by others).
4. Install the spring(s)
	1. The door must be manually held open in the 90-degree position during spring installation. The spring, once installed, will automatically hold the door open.
	2. The spring should be installed with the gas cylinder end attached to the door and the rod end attached to the frame.
	3. While the door is open, snap the gas cylinder end into the ball stud bracket on the door the snap the rod end to t the ball stud bracket on the frame.
5. Fill the 1 inch pan
	1. Pour the concrete, or secure the tile or wood flooring to the pan.

**OPERATION**

Floor doors are designed and built for years of dependable access. The Pan Doors are manufactured from aluminum. All floor doors come standard with stainless steel and nickel-plated hardware components. The basic components for door operation include turn handle latches, pneumatic springs, stainless steel hinges and a locking hold open arm as detailed:

* **Latch:** 316 SST Slam latch with interior rotating handle, and exterior T-handle key
* **Spring:** Pneumatic springs to ensure ease of opening and closing during use.
* **Hinge:** Nickel Plated concealed cabinet hinges

**Opening Fully Installed Door**

To open the floor door cover, use the slam latch L-handle key and rotate the slam latch. The cover will un-latch and the pneumatic spring will begin to lift the door. Use the lift handle from the top of the cover to fully pull open the door. The pneumatic spring will hold the door open in the 90-degree position.

**Closing Fully Installed Door**

To close the floor door cover, push down. Slam the door slightly to ensure proper latch engagement.

**MAINTENANCE**

* Floor doors should be manually operated once a year to check performance.
* Lubricate moving parts such as 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 should be cleaned with a mild soap or dishwashing detergent and water solution.
* Gaskets should be cleaned with a clean, damp, lint-free cloth. Do not apply mineral oils, vinyl dressings, or other lubricants to the gasket as they may 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
* If floor doors are installed in corrosive environments, such as environments exposed to salt water and or hydrogen chloride, it is recommended to replace the hinge and latch components every 5 years.

Follow the maintenance instructions to ensure the long life of the product. Contact Nystrom for information on replacing damaged parts.

**PARTS LIST**

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| Part Number | Description |
| FD-KIT-LKEY | LATCH KEY |
| FD-KIT-SLAMLATCH | STAINLESS STEEL SLAM LATCH |
| FD-KIT-CABINETHINGE | CABINET HINGE |
| FD-KIT-SPRING-PANDOOR | SPRING |
| FD-KIT-MESH-PANDOOR | DOOR MESH |
| FD-KIT-ANCHORS-PANDOOR | ANCHORS |
| FD-KIT-GASKET | GASKET |
| FD-KIT-STOPARM | STOP ARM |

