

MIFAB Access Door Selection Guide

Access doors provide access to wires, pipes and valves behind walls and ceilings and underneath floors for quick repair and maintenance. The selection and specification of access doors for walls, ceilings and floors merits careful consideration. Factors such as material type, size, function and anticipated wall or ceiling construction must be taken into account when planning the specification of access doors.

MATERIAL TYPE

Access doors are generally produced in three different material types: cold rolled steel, stainless steel and plastic. MIFAB uses a superior material; satin coated galvanized steel that is coated with a white finish unless otherwise specified. Stainless steel material is often required when access doors are located in areas of high visibility or areas susceptible to salt spray. The stainless steel is typically type 304 with a brushed #4 finish unless specified as type 316 for acid resistance. Plastic access doors are common in residential and mobile home construction and for motor access in whirlpools. They offer a clean finish and are resistant to corrosion. A UV stabilizer in the styrene plastic reduces susceptibility to harsh environmental conditions.

SIZING

Access doors are generally sized by considering either "hand access" to valves, wires and pipes or "person access" through a wall or ceiling. Hand access doors are typically from the 6" x 6" size up to and including the 12" x 12" size. Person access doors are typically from the 18" x 18" size up to and including the 36" x 36" size. Steel and stainless steel access doors are manufactured in standard sizes and can also be manufactured in any custom size. Plastic access doors are available in three fixed sizes: 8" x 8", 14" x 14" and 14" x 29". Custom sized plastic access doors are not available due to the prohibitively expensive mold process.

FUNCTION

There are many different possible functions for access doors. They can provide access in drywall construction, medium and high security areas, stucco walls, fire rated walls and ceilings, floors and roofs. They can also be manufactured with a recessed door panel to receive the existing wall / ceiling tile or fill; as valve boxes to accept valves and controls, and with a water resistant design to limit water seepage.

MIFAB Access Door Selection Guide (Cont'd)

DRYWALL TYPE CONSTRUCTION

The most common location for access doors is in drywall ceilings and walls. Holes are cut into the drywall and the doors are placed into them. Mounting frames with pre-punched holes permit easy securing to adjacent studs or ladder construction. A 1" flush frame around the door conceals the rough opening cut made by the installer. This provides a clean and flush look when the door is installed.

MEDIUM AND HIGH SECURITY AREAS

Areas such as detention facilities, prisons, schools, psychiatric wards and extended care facilities may require medium or high security access doors for maximum security while still providing ready access to equipment that is behind the wall or ceiling. These access doors are manufactured with either 12 gage (medium security) or 10 gage (high security) steel to ensure that they cannot be bent or compromised by hand. The medium security access doors are manufactured with cylinder key locks and the high security access doors are manufactured with a typical BEST lock or equivalent for high security. Alternatively, high security access doors can be manufactured without the lock (knockout only) in order for the high security facility to use their own lock specification on the high security access doors.

PLASTER / STUCCO WALL CONSTRUCTION

CAD-PL and CAD-FL-PL access doors are manufactured specifically for installation in plaster surfaces - before the plaster is installed. Common in the west and south-west, plaster wall construction requires special types of access doors that have a 3" wide metal lath around the door. The installer places the plaster over the metal lath during installation to ensure that the door is firmly embedded into the wall or ceiling. Only the door remains exposed when the installation process is completed. There are two different kinds of access doors manufactured with the metal lath around the door. One type has the door flush with the frame (CAD-FL-PL) and the other has the door recessed 5/8" from the frame (CAD-PL) to accommodate a single layer of plaster to match the wall or ceiling. In both cases, a 3" metal lath frames the door, and in the case of the CAD-PL, the metal lath is installed on the door panel for maximum adhesion to the plaster.



(UA ILLUSTRATED)



(MI-SADH ILLUSTRATED)



(CAD-FL-PL ILLUSTRATED)

MIFAB Access Door Selection Guide (Cont'd)

FIRE RATED WALLS AND CEILINGS

Walls and ceilings that are already classified as fire rated must have their fire ratings maintained when holes are cut into them to install access doors. There are two kinds of fire rated access doors - insulated (MPFR) and non-insulated (MFRU). Insulated access doors are tested and certified to the Underwriter's Laboratory (U.L.) 2B rating (1-1/2 hour) wall rating and the Warnock Hersey (WH) two hour non-combustible ceiling rating and three hour non-combustible wall rating. This permits the insulated fire rated access doors to be installed in either walls or ceilings to match their fire rated conditions. The MPFR is designed for installations where temperature rise is a concern. Non insulated fire rated access doors are tested and certified only to the U.L. 1-1/2 hour wall rating. Due to their construction, which does not include insulation within the door panel, they are not certified to be installed in ceilings. The MFRU is designed for installations where temperature rise or heat transmission is not a concern. Both kinds of fire rated access doors have springs that pull the door closed into the frame when the user releases the door. This ensures that the doors never remain ajar, for doing so will compromise the fire rating of the wall or ceiling. Two such springs are always provided with insulated fire rated access doors that are sized 14" x 14" and larger because of their heavy weight and possible installation into a ceiling where the door can hang open in a downward position; requiring additional force to pull the door closed into the frame.

FLOOR ACCESS

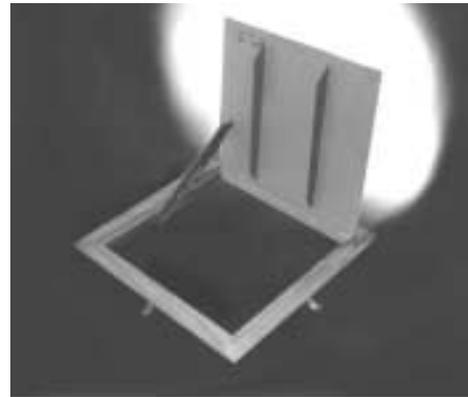
When access to underground stairways and basements is required, floor access doors (FHA, FHG) can provide ready access and withstand pedestrian traffic due to their 3/16" thick diamond plate solid steel door construction. Heavy duty, wheel bearing traffic floor access doors are available for the most demanding applications.

ROOF ACCESS

Access to the building's roofing system is accomplished through roof hatches. They are constructed of a "curb" that is bolted onto the roof deck and a hinged, heavy duty lid that is eased up and down with a grip handle moderated by two gas pistons. They are available in a variety of sizes although the 30" x 36" size is the most common. A ladder is a common option since it provides an easy method to ascend or descend through a roof hatch from an attic or mezzanine space.



(MPFR ILLUSTRATED)



(FHG ILLUSTRATED)



(RHG ILLUSTRATED)

MIFAB Access Door Selection Guide (Cont'd)

TILE OR FILL RECEIVING ACCESS DOORS These doors are recessed to accommodate a single layer of acoustical tile or drywall. The access door assists in sound control in acoustical or drywall ceilings and remains virtually concealed. It can be used as a fire-resistant access door (CAD-FR). Although it doesn't carry a fire rating, it is made of non-combustible steel. The fire resistance is achieved by using the same fire-resistant material as the wall or ceiling system. Often, the tile or fill material used on walls and ceilings is used to cover the access door so that the steel door is not visible. Only the thin material thickness of the steel frame and the latch is visible. This is applicable when the tiling pattern and appearance on a wall is preferred. To accomplish this, access doors are manufactured with 5/8" recessed door panels to receive the tile or fill material. CAD, CAD-DW and CAD-PL type doors are manufactured with this 5/8" door recess. CAD-FR access doors are manufactured with an 1 1/2" recess in the door panel.

VALVE BOXES

Valve boxes are commonly installed in walls where access to a valve or control that is behind a wall is required. They are constructed of a door, frame and enclosed box with a back to it to ensure that the valve or control remains clean within the box and is not affected by the environment behind the walls. There are two styles of valve boxes; recessed and surface mounted. Recessed valve boxes are installed right into and flush with a wall so that the box is not visible unless the door is opened. Surface mounted valve boxes are installed against a wall or piping system usually because there is no easy means to recess the box. Underground parking areas are common facilities that have surface mounted valve boxes

WATER RESISTANT

Access doors located in wash down areas, car washes, near water sources, and in other areas susceptible to airborne water spray are often required to be water resistant. MIFAB offers a modified version of the UA drywall access door to serve this purpose. It is model UA-WR. The same frame is used on the UA-WR as on the UA door. Four angle brackets are welded onto the inside of the frame and neoprene gasket is installed onto the brackets. The door panel is flush to the frame and has a double turnback so that the back ledge presses evenly into the gasket when the door is installed to provide a water tight seal. The door panel is secured to the frame with four cylinder key locks to ensure that there are no gaps between the door panel and frame. The same UA-WR access door can be used in air resistant applications.



LATCHES

The screwdriver operated cam latch is the most common latch on non fire rated access doors. It is operated by a common slot head screwdriver. The latch is flush with the door and is anchored behind the door panel by two welded steel straps. The cam latch can be replaced with a cylinder key or allen key operated lock to provide greater security. The fire rated access doors are operated by a combination turn ring / key operator. Every fire rated access door is shipped with both opening devices. The turn ring can be threaded into the latch notch. When tightened in place, it can be twisted and then pulled to open the door. The key operator is installed into the latch notch and twisted in order to open the door. A cylinder key lock is offered as an option on both types of fire rated access doors. When specified, it is installed adjacent to the standard latch notch operated by the combination turn ring / key operator.