How to install an interior fire door

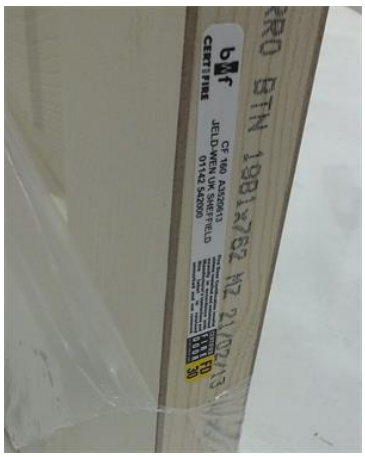
What are the key considerations when installing fire doors?

It's important to remember that fire doors aren't ordinary doors, they are an engineered safety product, a vital part of any building. Fire doors are crucial for saving people's lives and necessary for a property's passive fire protection safety. However, for a fire door to protect escape routes, prevent the spread of fire and restrict the amount of oxygen feeding the fire, it must be installed correctly.

There are four key considerations when installing fire doors, certification and compatibility, operation, alterations, and gaps.

Ensure certification and compatibility

All fire doors must be fire-rated. Labels found on the top edge of the door will clearly identify the fire rating, the manufacturer's name and its unique traceability code. Typically fire doors offer either 30 minutes or 60 minutes of resistance against smoke and flames and come with a FD30 or FD60 rating, respectively.



It is also vital that essential ironmongery such as hinges, closers, locks and latches are CE marked, giving you proof they have both certification and traceability. Incorrect ironmongery will not perform in the event of a fire. They also need to be firmly fixed with no missing screws and compatible with the door leaf's certification. In addition, frames, linings, casings, intumescent strips and smoke seals should be compatible.

Essential operation

If you are using a door closer, this not only needs to be CE marked, but it must be compatible with the door you are installing to ensure the closer closes the door into the latch from any position, in a controlled and consistent way. You can do a simple test by opening the door to 75mm and making sure it shuts onto the latch. It's essential that the fire door is firmly closed, so in the event of a fire the heat activated intumescent sealing system will work effectively, taking over the role of maintaining the door in the closed position, ensuring no smoke can leak through the gaps.

Be aware of alterations

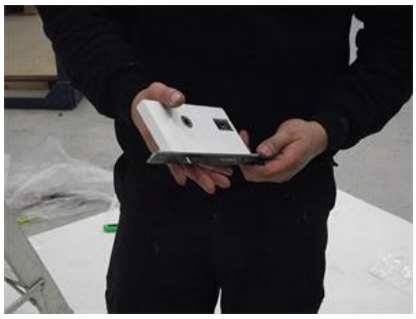
Never trim the top edge of the door as this holds the important certification information. If you need to trim the two long edges or the bottom of the door, always check the instructions that come with the door, as the trimming allowance can vary. Certification will be made void by cutting apertures for glazing and air transfer grilles, as will trimming the door more than the allowance or removing certification markings.

Mind the gap

To prevent smoke getting through the fire door, a non-combustible sealant must be used to fill any voids between the door and the wall that it's being installed into.

However, when it comes to the space between the door and its frame, it's mandatory to have no more than a 3mm gap around the top and two edges and 10mm from the bottom. Intumescent strips should be fitted around the edge of the door frame or in the door edges. These strips lie dormant during everyday use, but when in contact with extreme heat, they expand at a rapid rate, sealing the gap between door and door frame, creating a barrier against fire. This is why it is so important that a fire door is kept closed at all times, as it will protect the route to escape in the event of a fire. To protect against smoke, you can install intumescent strips with smoke seals to stop the smoke getting through the door as well as the fire.

Depending on the doors certification, sometimes intumescent pads are used behind all hinges, as well as wrapped around locks and latches, which allows the material to expand and seal any gaps.



It's only when a fire breaks out that the consequences of an installers mistakes are known. Even if a 30minute fire door is hung, it may only provide 5-10 minutes of fire resistance, if fitted incorrectly. Remember to check the doors certification (CF) which is unique to that door for full instructions and information; these do differ door to door.