IMPORTANT INFORMATION

Note: Frame jambs may have been left long for site trimming. Do not install frames without first checking the correct door height.





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Instructions for the Storage & Installation of Fire and Acoustic Doors

These are for guidance only as all installations must be carried out by a qualified professional.

Failure to strictly adhere to all current regulations will result in an uncertified installation and will put lives at risk.

Preliminary Works

Door frames should be sized to leave a 5-10mm fitting-in gap between the frame and the supporting structure. During installation, suitable packing pieces of a hard material can be inserted between the frame and wall structure at each fixing point so that the frame is installed perfectly vertical and square. After fixing, the fitting-in gap must be fully caulked with a suitable product to maintain the required fire and/or acoustic properties.

 Failure to allow a fitting-in gap between the frame and wall structure can result in a badly fitted door.

All structural work and especially wet trades should be clear before doors and frames are delivered to site. The moisture content of all wood products is critical so it is very important that the site has thoroughly dried out before doors and frames are delivered.

 Failure to dry out the site causes doors to swell and/or bow.

If pivot doors are to be installed pockets to receive closer boxes in floors and screeds should be completed in advance. Pockets will need to be formed and located with great accuracy to co-ordinate with the doorframe position.

Delivery & Site Storage

Mechanical lifting equipment such as a fork lift will be required because doors are usually too heavy for a two man lift.

During delivery all doors should be inspected and any poly wrapping should be replaced after the door leaves have been checked.

Do not store door leaves standing upright or leaning as this causes bowing. Doors must be stored on a flat level floor with at least three bearers under the doors. Use cardboard or similar packing on the bearers to avoid damaging the door face.

When stacking, put the largest door leaf at the bottom with size reducing up the stack. Plain flush door leaves can be stacked to a maximum of around 20 door leaves. When door leaves have projections such as glazing beads or pre-fitted hardware, it is important to provide level intermediate battens between door leaves to allow clearance and to use suitable soft packing to avoid damage to the door faces.

Cover the stacked doors to prevent fading and keep the doors clean. This is very important for veneered doors.

Take extra care when stacking complete door assemblies ensuring cross battens are deep enough to avoid stress on fitted door furniture such as handles.

It is good practice to prime or seal all items supplied in the white (unfinished) immediately.

Installer Qualifications

It is strongly recommended that the installer is a member of a recognised quality assurance scheme to ensure that best practice is used. In respect of fire doors, the inspection authority may require evidence that the installation process complies with the tested specifications for, but not limited to:

- Intumescent systems.
- Compliance of the glazing with the tested detail supplied by the door leaf manufacturer.
- The size of all operating gaps.
- Intumescent protection around hardware and the quality of the preparations.
- Fixings and the quality of the supporting construction and the prepared opening.
- Fire and smoke stopping methods used in fitting-in gaps and voids.

Installation

Operating gaps between frame and door are usually 3mm but can vary between 2 and 5 mm. Any movement of the structure after doors are installed will affect these margins and cause malfunctions such as;

- Shrinkage due to drying out.
- Growth due to increase in moisture.
- Deflection of structural members.

Fixings must be at 100 mm from top and bottom of each jamb with intermediate fixings no more than 500 mm apart. A centre fixing through the head is permissible only when deflection is not a risk.

Fixing within 25 mm from the edge of masonry excluding any plaster should not be attempted.

Fixings into metal stud partitions should be made to a full length timber filler in the stud.

Avoid bruising or damage by contact with the ground and wear gloves to avoid leaving finger marks.

Doors should be prepared for hardware in accordance with fitting instructions supplied by the hardware manufacturer before they are hung in place. Preparation for mortised hardware must be carried out before the door is hung. If doors are supplied with preformed hardware slots or recesses, these will have been machine cut and may need squaring out (trimming out any rounded corners where applicable) prior to hanging.

Adjustment to the fit of door leaves at the installation stage must not be attempted until the site is completely dry when the defect can be remedied in a single operation as adjustments made too early can result in excessive gaps as the building dries out.

Only as a last resort should door leaf edges be trimmed; this may necessitate replacement of seals and repositioning of hardware affecting the quality and integrity of the door.

When it is necessary to trim door leaves, remove equal amounts from each vertical edge and make all height adjustment to the bottom of the door leaf. Grooves for intumescent seals may need to be re-cut to their original depth using a router however it is important to take great care so as not to increase the width of the groove.

All fire doors require three hinges that are certified to the correct fire standard and load bearing capacity. The common position for a three hinge application is for the centre point of two hinges to be at 250mm and 400mm down from the top of the door and the third hinge centre point at 250mm up from the base of the door. Larger doors such as those exceeding 2250 mm high and/or 160kgs will need extra hinges.

Do not pack poorly fitted hinges with flammable or compressible material such as cardboard.

When installing narrow doors it may be necessary to ease the leading edge with a plane so as to clear the door frame.

Do not fit intumescent seals until final decoration is completed and has dried out.

Fix loose doorstops (if applicable) to suit the shape of the door leaf so as to permit an easy latching action and ensuring that any seals are in correct contact with the door leaf face.

Glazing

Fire doors will be supplied pre-glazed where applicable and any changes made on-site will invalidate the certification.

All doors and screens must be glazed strictly in accordance with a specification for each type provided by the glass manufacturer and

supported by evidence of test or assessment by a recognised authority. The applicable standard is BS 6262: 1982 Code of practice for glazing of buildings.

 Incorrect glass and/or gaskets will invalidate the certification and will be rejected by the inspection authority.

Post Installation

Check that apertures are prepared and ready for hardware.

Ensure that structural gaps are completely filled to suit fire, smoke or acoustic requirements as appropriate. The filling material should maintain a permanent flexibility and a gun applied intumescent and/or acoustic mastic is recommended. Large or irregular gaps and voids can be filled with a cement based material then packed with mineral wool or sealed with intumescent material. Do not rely on architraves which might alone satisfy the fire rating as they will not stop cold smoke penetration.

If required, conceal the frame fixings with timber or plastic pellets.

Ensure that all items supplied in the white (unfinished) are primed or sealed including top and bottom edges and apply further coats within a reasonable time and before hardware is fitted.

Fit architraves.

Decoration & Commissioning

When all decoration is complete and dry, proceed to fit hardware then fit the intumescent and acoustic seals around the door and/or frame in strict accordance with the door manufacturers instructions.

Intumescent and acoustic seals must be a tight fit and must extend the full length of the door or frame to which they are being applied. Do not leave gaps between the adjoined ends of strips or seals.

Check and adjust the door for correct gaps and operation of seals. Compression seals should be 50% compressed along their entire length and blade and brush contact seals should overlap the opposing face by $1-1\frac{1}{2}$ mm.

Where drop seals are fitted at the bottom of a door, ensure that the operating pin contacts with the frame so as to lift the seal when the door is opened and check that the seal will rise and fall freely.

Check glazing gaskets and bead are correct fitted and that any glazing pins have been punched, filled and decorated.

Fix kick plates, door protectors and signage.

Fix door closers. Automatic closing is a mandatory requirement for some fire regulations.

Make good any damage to finishes then clean and clear site.

More information is available on our web site or you can call our technical team on 020 8805 6662.