



IDM Doors Technical Information

IDM Doors Ltd Data Sheet 7

Survey and Installation of Doorsets

During the survey stage, it is the responsibility of the installer to take into account the implications of all statutory regulations and health and safety issues. These fixing and survey notes are in line and in conjunction with NHBC/BSI instructions for frame fixings. These notes are for guidance only and the installer must refer to Building Regs/NHBC for updated method of fixing.

1. Survey

- A check should be made to confirm there are no structural defects to the aperture. Openings should be measured at several points across the width and height and diagonally to check for squareness of the opening.
- The smallest width and height dimensions are taken and these become the 'tight' sizes to be used for the new frame manufacture.
- The preferred method of fixing is determined during the survey, checking for suitability with the client.

2. Fitting Tolerances

- Pvc and timber frames should have a 5mm clearance all around the frame, to allow for expansion and contraction of the frame after installation.
- Generally, sills will sit flat onto the fabric of the structure and do not require a fitting tolerance.

3. Frame Positioning

- Care should be taken to ensure that new frames are correctly positioned in the opening and are located with the vertical and horizontal members square and plumb.
- Suitable frame packers or wedges should be used to keep the frame in position prior to fixing.

3. Frame Fixing

Two industry approved methods can be adopted, fixing lugs or through frame fixings.

- **Pvc Frame Fixing Lugs:** Most commonly used on new-build applications to enable factory-glazed frames to be installed. The fixing lugs are available from IDM Doors Limited and we recommend a minimum of 4 lugs per jamb, with the top and bottom fixings no more than 150mm from either end of the jambs. The lugs are designed to clip onto the Pvc frame, with the fixing provided with a suitable screw into solid blockwork on the inside. The lugs need to be attached to the frame before offering the frame into the opening.
- **Through Frame Fixing:** Into brickwork, blockwork or other structure with expanding anchors (Fischer or similar) with the minimum penetration into the structure of 50mm. At each point of fixing the anchors should pass through suitable non-degradable packers to retain the fit tolerance and to ensure a solid attachment of the frame to the fabric of the building. Care to be taken to avoid over-tightening and causing distortion of the frame. As with the lugs, a minimum of 4 fixing points per jamb recommended.



IDM Doors Technical Information

4. Fixing Locations

- We recommend a minimum of 4 fixing points per jamb, with the top and bottom fixings no more than 150mm from the ends of the jambs. The remaining fixings should be equally spaced and not more than 600mm apart. The fixings should penetrate a minimum of 50mm into the existing masonry for a secure fixing.
- Polyurethane expanding foam should only be used as a gap sealer and must not be relied upon to offer a secure fixing.

5. Finishing and Cleaning

- Removal of finishing lines of old frames from the structure should be achieved as far as practicable.
- Following making good, the protective tape on the framing should be removed.
- Any finishing trims should now be added as required.
- Following installation and making good, frames should be cleaned and any drainage paths cleared of debris.

6. Sealing of Frames

- The fitting tolerance between the frame and structure should be sealed against the ingress of water and to prevent air leakage, with a sealant appropriate to the application. Low modulus silicone sealants are commonly used with Pvc as they permit differential movement without loss of performance.
- On new build applications an internal seal should also be used in accordance with 'Robust Detailing' referred to in Building Regulations.
- Frame to structure gaps in excess of 6mm should have a firm closed cell backing strip supplied to avoid the use of excessive sealant and possible 'sinking, during curing of the sealant.

7. Final Inspection

- The fit of the door in the frame should be checked for operation. The keeps and hinges provided allow a certain amount of final adjustment to ensure the door operates correctly and smoothly.
- Please note also the door slab at the lock side may not sit fully flush with the frame. This is a phenomenon which happens regularly to our installations and is caused by the compression seals around the doorframe not being 'worn in' and these can push the door face away at unsupported points, lock-side top and bottom corners of the door. The door will fit flush at the locking latch and hinge side of the door as the hinges force the seal to its minimum effective position. However, the seals and door-set complete are designed to give a very long life with minimal maintenance and over time the seals will naturally compress and as a consequence will allow the door to sit flush in the frame. In order to keep the door tight to the seals the Multi-point lock keeps are specifically designed to be easily adjusted to maintain a good level of weather-sealing over a long period of time. As a consequence of this we will not determine this to be a faulty product, moreover to be part of our original starting specification.