

Window Restrictors – Things to consider

Restricted windows can severely limit air flows into a room and can compromise natural ventilation strategies – however, windows do not have to be legally restricted in all cases. The standards and guidelines require risk assessments as to whether windows should be restricted. The risks are falls from open windows and for ground floor windows the possibility of someone walking past the building walking into an open window that protrudes in front of the building. Using plants or uneven paving under a window can overcome the risk of people walking in to an open window, with regard to falls it is important to consider the following when undertaking risk assessments. Note that for Healthcare settings there are more stringent risk requirements which are outlined below:

Risk assessment

There is no automatic requirement to fit restrictors to windows in buildings; this will be determined by the designers who should carry out risk assessments together with the building occupants/ owners. Window restrictors should only be fitted where the risk assessment shows that they are needed - in some buildings the risk of falling from windows may be more than the accidental risk and may include falls related to a confused mental state (eg some SEN pupils, some hospital patients) or deliberate harm.

Judgement need to be made on areas of the building where greater risks may be realised – taking account of the age and nature of the individuals who will use the facilities and the intended use of particular parts of the Buildings. Factors that could give rise to a higher risk of falling from windows include:

- Where vulnerable building users, which could include mainstream and special schools, hospitals and health care buildings
- Where occupants may display more challenging behaviour and discipline eg referral units
- Where there are windows that users may foreseeably use to gain access/egress to remain undetected eg onto roof areas etc;
- Where the design of the window creates additional risk eg where occupants could sit on window sills/window seating/ radiators/ cupboards etc with wide opening windows, particularly in unsupervised or busy thoroughfares
- Where higher risks of falling from opening windows are identified, the risks can be reduced by restricting the window in some way. Guidance on the amount of restriction to prevent the risk from falls in a range of situations is given in:

BS 8213 – 1: 2004 Windows, doors and roof lights – Part 1: Design for safety in use and during cleaning of windows, including door-height windows and roof windows – code of practice. Paragraph 4.2 recommends that a risk assessment should be carried out on the building to establish the relative priority needs of the building's windows including the design for safety in use. The risk assessment should take into account the type of occupancy and

age range of both occupants and visitors to the building, where this can reasonably be predicted. If a significant change of use of the building occurs, the risks should be reassessed. Paragraph 5.4.1 recommends the fitting of safety restrictors to accessible opening lights where children or adults are at risk of falling out. Paragraph 3.14 defines a safety restrictor as a mechanical device, which is intended to limit the initial movement of an opening light so that a clear opening of not more than 100mm is achieved at any point.

BS 6180 'Barriers in and about buildings – Code of practice' contains advice re: barriers and window openings.

Other vent options to improve air flows if window restriction is required

Some lower level windows will require restricted openings for health and safety or security reasons. In this case louvre vents can be provided that offer a much larger openable free area for ventilation. High level opening windows should not require restrictors to be fitted for health and safety and can be designed to overcome the security risks and can therefore be designed to open fully under summertime conditions.

Entrapment

EN60335 part 2 103:2003: Risk assessment required for the risk of finger entrapment, there is no risk above 2.5m above floor level but below this level a risk assessment based on users is required. Eg young school children are more likely to get their fingers trapped compared with adults in an office.

Building Regulations Approved Document K, Requirement K4 requires consideration of restriction of opening windows or other means to prevent collision with open windows.

IMPORTANT NOTE WITH REGARD TO HEALTH BUILDINGS

A patient fell out of a window and died after he forced a window open (that had a restrictor) and climbed out. He was in a confused and agitated state after an operation

Health Building Note 00-10 Part D: Windows and associated hardware

As well as carrying out risk assessments on window openings it is important to ensure that any window restrictors fitted exceed the requirement of BS EN 14351-1 which recommends that restrictors must be able to hold a window in place for 60 seconds when a static load of 350 newtons is applied to that window.

Note: we have tested our SECO 24/25 and 24/40 and the chains require a force in excess of 4000 newtons before the chains fail. Therefore selection of appropriate fixing detail is important as the fixing detail is likely to fail before the chain.

For a healthcare setting all actuator screws and fixings **must be tamper proof**.