

# BS7036: Code of Practice for Safety at Powered Doors for Pedestrian Use

## British Standard BS 7036

### Code of Practice for: Safety at Powered Doors for Pedestrian Use

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#### Part 1: General

Automatic activation devices:

Control mats:

Minimum width = Doorway Opening – 75 mm max. (each side)

Construction and Placing of Barriers:

- Barriers should be a minimum of 900 mm in height
- They should be at right angles to, or in the same plane as the doorway opening.
- Barriers should be capable of resisting a horizontal force of at least 740 N/m applied to the top edge.

Signage:

- The appropriate signage should be affixed to the powered door system at a height of between 1300 mm and 1600 mm.
- Appropriate signage includes:
  - No entry sign
  - Keep clear sign
  - Emergency break-out sign
  - Automatic door sign
  - Handicapped sign
  - Direction of travel sign

#### Part 2: Straight and Curved Sliding Doors and Prismatic and Folding Doors

Safety during the opening cycle:

- Where practicable, one of the following should be fitted
- **A)** A suitable barrier, the distance between the barrier and the fully open door should be greater than 25mm and less than 100mm.
- **B)** A pocket screen of minimum height 1500 mm
- **C)** Presence sensors

In order to minimise body traps:

- If the gap between the face of the door and the structure across which it slides is less than 100 mm, the gap between the rear edge of the door in the fully open position and the fixed structure should be greater than 200 mm.
- If the gap between the face of the door and the structure across which it slides is greater than 100 mm, the gap between the rear edge of the door in the fully open position and the fixed structure should be greater than 500 mm.

During the opening of a sliding door

- a)** When the door is fully open there should be a gap of at least 25mm between the strike and the jambs.

- b) The clearance between the face of the jambs and the face of the leaf glazing should be greater than 25mm.
- c) The door should be stopped a minimum of 25mm short of a mullion or structural return.
  - When a folding door is in the open position there should be a gap of at least 25mm between the hinge and the leading strike.

#### Safety during the closing cycle

- One of the following means should be used to prevent doors shutting on traffic during the opening cycle:
  - A) A hold-open beam positioned between the jambs at a height between 300mm and 600mm above the finished floor level.
  - B) Safety mats or presence sensing safety devices should be used.

#### Means of Escape:

- If powered doors are intended as a means of escape from a building then the doors should be either:
  - A) Capable of manual breakout in the direction of escape
  - B) Should be linked to the fire alarm system in order to open the door on activation of the alarm.
- The resistance to breakout should not be greater than 220N at the leading or meeting stile.

### **Part 3: Swing doors and balanced doors:**

#### Safety during the opening and closing cycle:

- One of the following safety devices should be fitted:
  - A) A presence sensing device which interrupts door movement at any point during the cycle.
  - B) A presence sensing device or safety mat which gives limited protection by preventing a fully open or closed door from moving.

If a barrier is installed, the distance between the barrier and fully open door should not be less than 25mm and not more than 50mm.

The maximum static entrapment force should not exceed 150N

### **Part 4: Low energy doors:**

#### Safety during the opening and closing cycle:

- The maximum static entrapment force should not exceed 67N when applied 25mm from the leading or meeting stile of the door at any point in the opening or closing cycle.
- If automatic activation devices are fitted they should be activated:
  - A) 1400 mm from the door measured perpendicular to the plane of the closed door, where the door opens away from the user.
  - B) 1400 mm from the leading edge of the door in the fully open position when the door opens towards the user.

The force required to open the door manually should not be greater than 90N at the leading or meeting stile.