

# Safety Warning Notice No 3

## Use of hold-to-run

### Introduction

Hold-to-run, or dead man control as it is alternatively referred to, is the simplest means of providing safety on powered doors, gates and traffic barriers. The document that describes its use as a control measure for crush, impact, draw in and shearing hazards is EN 12453, first published in the UK in 2001 as BS EN 12453:2001.

### Requirements for use

Hold-to-run is a system of control that places a trained user in control of the moving safety of a powered door, gate or barrier. When used correctly, no other means of protecting hazards caused by impact or reducing gaps is necessary.

The conditions for use of hold-to-run are:

1. Only trained users should have access to hold-to-run controls hence they should prevent un-authorised use; this is commonly achieved by use of a key switch when the controls are in a public place.
2. The leaf should only move when pressure is being applied to the controls.
3. The leaf should stop rapidly and automatically when the control is released; the maximum overtravel (stopping distance) is 100mm.
4. The controls should be the only active control device to avoid any possibility of conflicting commands.
5. The speed of the leaf should be limited to no more than 0.5m per second; in the case of opposing leaves, this equates to 0.25m per second each.
6. The controls should be placed such that the user:
  - is in a safe position, and
  - is in the immediate vicinity of the system, and
  - has full, real time view of all hazards being controlled by hold-to-run, and
  - video and CCTV cameras are not considered to provide real, full time vision.

### Testing of hold-to-run systems

Compliance testing for hold-to-run involves:

- a functional check that the leaf only moves when pressure is applied to the control device
- a visual inspection that all impact and reducing gap related hazards are visible from the control station
- a check that the user is in a safe place when using the controls
- a check that there is only one control device active at any one time
- a check that the controls can *only* be used when the user is in the immediate vicinity of the system
- the over travel (stopping distance) is measured by operating the leaf to a predetermined mark and releasing the control, the resulting overtravel is then measured.

### The law

New powered doors, gates and barriers must comply with the Machinery Directive (Supply of Machinery Safety Regulations in the UK). Compliance with the regulations involves achieving the state-of-the-art for the appropriate product group. Hence, failure to comply with EN 12453 is routinely interpreted by regulators and the courts to be in breach of the law.

New industrial doors and garage doors must additionally comply with the Construction Products Regulation. Compliance with EN 12453 is mandatory (by reference from Annex ZA of EN 13241) under the Regulations.

Existing systems in service are covered by various pieces of health and safety law depending on the location and local jurisdiction. The test for compliance is whether or not 'reasonable and practicable' measures are in place to provide safety.

Past criminal prosecutions in this environment have indicated that providing the levels of safety outlined in the current product specific British and European Standards is seen by the regulatory authorities to be both reasonable and practicable.

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## Further advice and guidance

DHF codes of practice (click on the appropriate product group):

<https://www.dhfonline.org.uk/publications/technical-specifications/1.htm>

DHF advice on Construction Products Regulation compliance:

<https://www.dhfonline.org.uk/publications/technical-specifications/1.htm>

HSE advice on ensuring safety:

<http://www.hse.gov.uk/work-equipment-machinery/power-gates/safety.htm>

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