

WHAT POINTS REQUIRE CONSIDERATION?

1. What is the primary function of the door and where is it to be installed?
2. Who is going to use the door?
3. How is the door to be operated?
4. What is the frequency of use and speed of operation?
5. How is the safety of users to be ensured?
6. How do you ensure the correct specification is obtained?

WHO IS GOING TO USE THE DOOR?

It is important that the user category is clearly defined at the specification stage, to enable the supplier to advise on and quote for the most suitable types of operation/automation and appropriate safety devices.

Users can be defined in terms of three types:

Type 1 (Trained users/ restricted area)

A 'Restricted' number of trained people operating a door in a 'Restricted' area which is not accessible to the public e.g. an employee operating the access door to a factory or warehouse from within the premises.

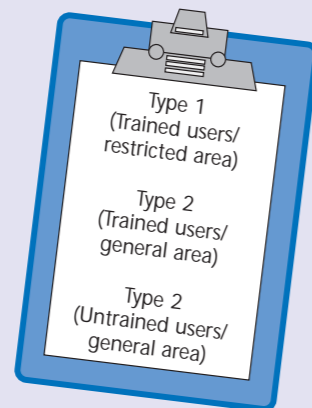
Type 2 (Trained users/general area)

A 'Restricted' number of trained people operating a door in a 'General' area which is accessible to the public e.g. a door between a stock/bulk warehouse and the general sales floor area or a security shutter covering an entrance to retail premises.

Type 3 (Untrained users/general area)

Operation is available to anyone and the door is in a 'General' area that is accessible to the public e.g. a rapid-roll door in a hospital corridor.

It is particularly important to identify this user type, as 'Untrained Users' may include children, the disabled and the elderly.



HOW IS THE DOOR TO BE OPERATED?

The way in which the door is operated is influenced by where the door is going to be installed and who is going to use the door.

Doors can only:

OPEN - CLOSE - OR - STOP

But there are a number of control devices that can be inter-faced to perform these functions. Although movement is defined in terms of OPEN and CLOSE, there are three ways of achieving this :

'HOLD-TO - RUN' CONTROL

Where the user is within sight of the opening and holds the control to enable movement. If the control is released the movement stops.

IMPULSE CONTROL

A user can operate a control to initiate movement that continues until another signal is received.

AUTOMATIC CONTROL

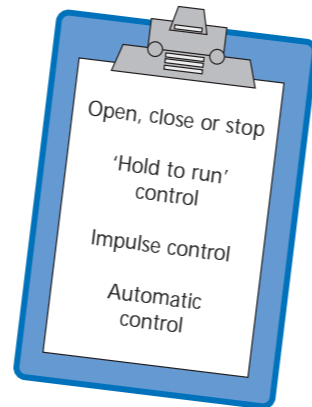
Where the movement of a door can be initiated from a remote signal e.g.

- a radio control, keypad or card reader
- an induction loop, radar or photobeam
- a timer

Where impulse or automatic operation is specified appropriate safety requirements need to be considered.

FIRE RESISTING DOORS

Where doors are provided for fire protection purposes care should be taken when specifying the method of operation. The door may be released from a local heat detector, or may be operated from a fire alarm signal or smoke alarm which is not positioned in the immediate vicinity of the door, in which case there are additional safety – in – use considerations.



WHAT IS THE FREQUENCY OF USE AND SPEED OF OPERATION?

Another major factor in the way a door operates, is the duty i.e. the number of times that the door will be expected to operate in a given period of time. This can be summarised as follows:

Standard security duty

Door will be opened once or twice per day. Typical application – shop entrance security shutter or grille.

Standard industrial duty

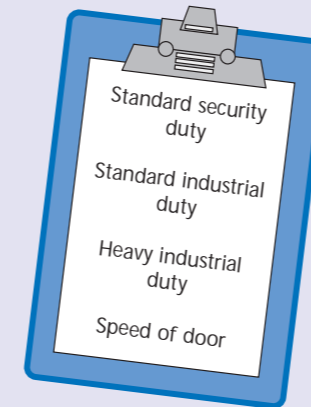
Door will be opened not more than four or five times in any one hour on an average working day. Typical application – factory goods Inwards/Despatch door.

Heavy industrial duty

The frequency of use must be specified as must the interval between operations. For example a car park door might open fifty times in one hour in the morning and again in the evening but not be used much in between. A warehouse door might open twenty times per hour for sixteen hours per day, every day of the year.

Speed of door

If the operating speed of the door is to exceed 0.5m/sec then special considerations apply.



HOW IS THE SAFETY OF USERS ENSURED?

This guide is based on the British and European Standard BS EN12453 industrial, commercial and garage doors and gates – safety in use of power operated doors – requirements.

This standard sets out the safety goals. To ensure the safety of users, safety devices may need to be provided by the door manufacturer. In order to ensure that the full system will comply with the standard, the manufacturer will require information relevant to the guidelines on application, usage, duty and speed of operation.

This guide also supports the essential requirements of the following European Directives

- The Machinery Directive 98/37/EEC (Mandated under the Supply of Machinery (Safety) Regulations)
- The Low Voltage Directive 73/23/EEC
- The EMC Directive 89/336/EEC

Full compliance with these regulations can only be effected by ensuring that the installed power operated door carries a 'CE' marked label, a Declaration of Conformity is provided and operating and maintenance instructions are supplied.

To support the CE marking of the installed door the supplier will have completed a risk analysis on the product based on the information provided by the purchaser.

Maintenance and Repairs

Owners and occupiers of buildings have responsibilities under the Health, Safety and Welfare Regulations, the Provision and Use of Work Equipment Regulations and the Fire Precautions Regulations to ensure that they carry out a risk assessment and keep the doors regularly maintained and in good working order. This should be done in accordance with the routine maintenance and operating instructions provided by the door supplier. It is also necessary to identify any special training requirements.



HOW DO I ENSURE THAT THE CORRECT SPECIFICATION IS OBTAINED?

- Choose a DSMA member to supply and install your door. The DSMA and its member firms have been actively promoting safety and good practice for some years and are fully aware of the importance of meeting the legal requirements faced by users of their products.

- At the time of enquiry provide correct and adequate information in respect of the items identified in this guide.

Some types of door, such as fire doors may be subject to additional requirements and the specification writer is advised to consult the DSMA direct if in doubt.

