



# A Guide to Approved Document M by the Door and Hardware Industry

A summary of the principal issues raised by Approved Document M prepared by the DHF in consultation with the main trade associations.

Prepared by:

# DHF

## Door & Hardware Federation

Endorsed by:



Architectural and Specialist  
Door Manufacturers Association



Guild of Architectural  
Ironmongers



British Woodworking  
Federation



Master Locksmiths Association



Intumescent Fire Seal  
Association

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# DHF Guide to Approved Document M for the Door and Hardware Industry

The Building Regulations 2000 (as amended) place requirements on everyone carrying out certain building operations (in England and Wales - separate legislation exists for Scotland and for Northern Ireland.) The functional requirements, which are laid down in Schedule 1 of the Regulations, must be met, but there is no prescribed method of meeting them. Guidance about meeting the requirements is contained in 'approved documents' published by the Department for Communities and Local Government.. It must be emphasised, however, that while a building complying with an approved document will be deemed to satisfy the relevant functional requirements, this may not be the only way of satisfying these requirements.

The Regulations do demand (Regulation 7) that any work is carried out with proper materials. One way in which compliance with this

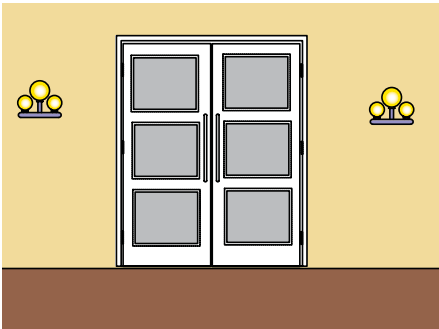
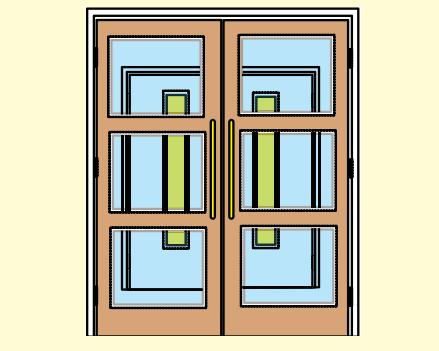
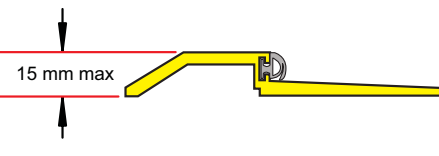
regulation can be demonstrated is by appropriate use of construction products bearing the CE mark under the Construction Products Directive (89/106/EEC). A product can only carry the CE marking under this directive once a harmonised European technical specification exists for products of the relevant type, and the necessary evidence of conformity has been obtained for the product in question. Such specifications currently exist for many - but not all - of the product types referred to in this document.

Requirements for access to buildings are covered by Part M of the Regulations, which were updated by the Building (Amendment) Regulations 2003. The publication the same year of a revised Approved Document M raised a number of issues of interpretation because of apparent conflicts with other guidance documents. On the Department for Communities and Local Government website

there is a series of Frequently Asked Questions to resolve these difficulties.

This DHF guide, prepared after consultation with the main trade associations involved, is a summary of the principal issues which have been raised. In every case, a source for the guidance is given so anyone needing more information can read a fuller account. In some cases, diagrams and tables provided in the source documents have been referenced.

Interpretations or comments have also been offered for some of the requirements where it was felt that this would be useful. These are in italics and, although given in good faith based on practical experience, will require acceptance by the local Building Control Officer.

	Application	Requirement		Source
1	Entrance doorway	The main entrance doorway should be easily identifiable, eg by lighting or by contrasting visually with its immediate surroundings.		BS 8300 6.1.2 AD M 2.7 b
2	Entrance doors	Where possible, entrance doors and windows should offer a clear view of the entrance lobby.		
3	Thresholds at entrances	The threshold of a main entrance should preferably be level or, if necessary, raised no more than 15mm and suitably profiled.		BS 8300 6.2 AD M 2.7 e

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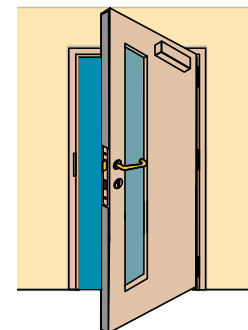
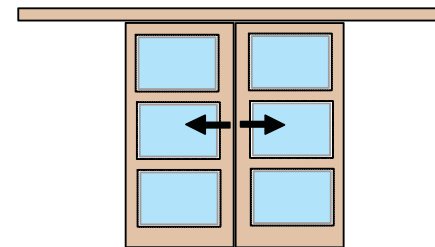
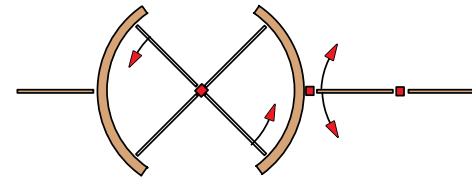
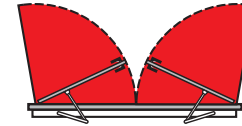
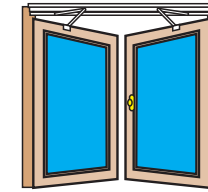
## Application

Entrance doors – alternatives to door closers

## Requirement

If a door closing device conforming with the requirements of AD M (see below) is insufficient to keep the door closed, the following possibilities should be considered:

- a) A power operated door (see also BS 8300 6.3.3).
- b) A low energy swing door (see also BS 8300 6.3.4).
- c) A powered revolving door accompanied by an auxiliary side-hung door (see also further information in BS 8300 6.3.5).
- d) An entrance lobby or air lock system.
- e) A latched door with a low power door closer.



## Source

AD M  
FAQs

## Application

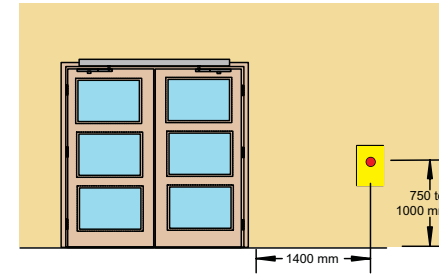
## Requirement

## Source

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Power operated doors

Safety provisions should meet the requirements of AD M 2.21 a-f. Should manual controls be required they should be between 750mm and 1000mm from the floor, be set back 1400mm from the open door, contrast visually with the surroundings and be operable with a closed fist.

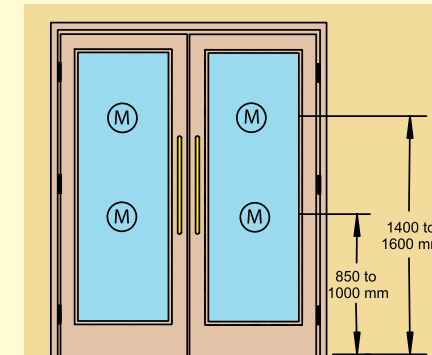


BS 8300 6.3.3;  
AD M 2.21

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Glass doors

a) The glass must be clearly defined with manifestation at two levels (850mm -100mm and 1400mm-1600mm above the floor).



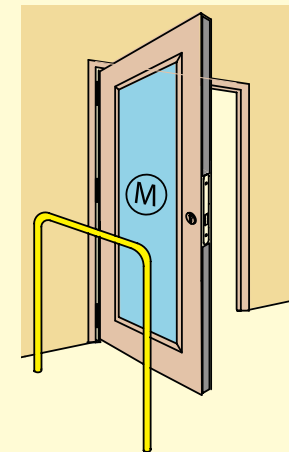
AD M 2.24  
(entrance doors)

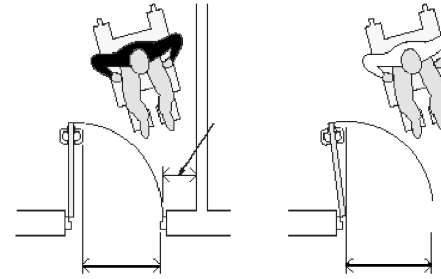
AD M 3.10 i, & j  
(other doors)

b) If the door is capable of being held open, the leading edge must be guarded so that it cannot constitute a hazard.

If, when open, the door is within 300mm of, and parallel to, a wall, protection may not be necessary.

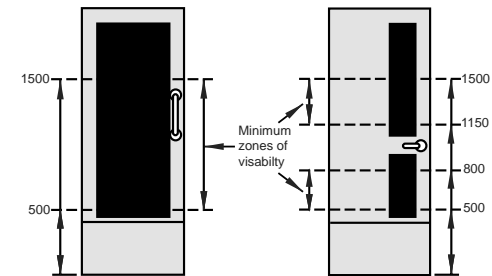
c) If the door forms part of a glazed screen, it should be clearly differentiated by high contrast strips at the top and to both sides.





**Minimum effective clear widths of doors**

Direction and width of approach	New buildings (mm)	Existing buildings (mm)
Straight-on (without a turn or oblique approach)	800	750
At right angles to an access route at least 1500mm wide	800	750
At right angles to an access route at least 1200mm wide	825	775
External doors to buildings used by general public	1000	775



### Application

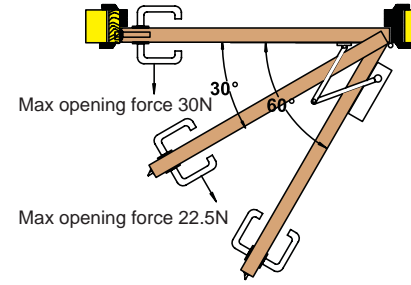
### Requirement

### Source

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Unpowered doors, including fire doors – opening force

The opening force at the leading edge of the door should be not more than 30N between 0° and 30°, and not more than 22.5N from 30° to 60° of the opening cycle. Controlled door closing devices should conform to BS EN 1154:1997

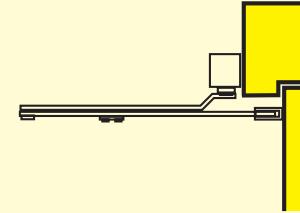


AD M FAQs

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Fire resisting doors – door closers

Controlled door closing devices below power size 3 are not suitable for fire-resisting doors.

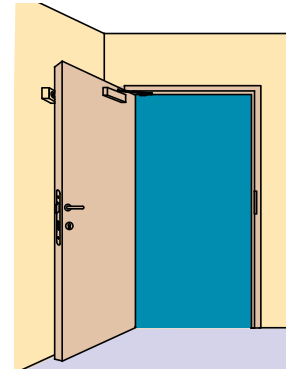


BS EN 1154 Annex A

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Fire resisting doors – hold open devices etc.

If the opening force for a door on a circulation route is excessive, an electrically-powered hold open device to BS EN 1155 should be installed. Delayed action or swing free door closing devices may be used on doors to individual rooms but are not considered suitable for doors on circulation routes.

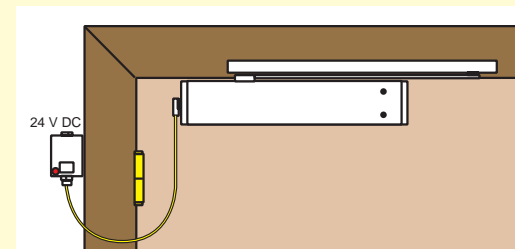


AD M FAQs

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Fire resisting doors - swing free closers

Delayed action or swing free closing devices may be used on doors to individual rooms but are not considered suitable for doors on circulation routes.



AD M FAQs

## Application

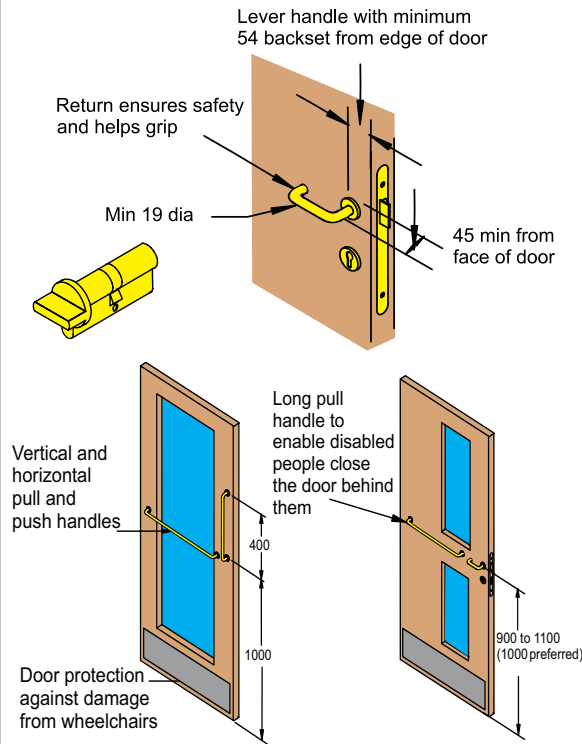
## Requirement

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All doors - furniture

Dimensions and position of furniture as figure 17 of BS 8300. Latches should be operable with a closed fist (eg via a lever handle). Care should be taken in selection of lock and latch furniture to ensure that turn buttons and the like are manageable for all users. External handles should not be cold to the touch. All door opening furniture contrasts visually with the surface of the door.

*The preferred maximum height for the lower end of a pull handle is 1000mm but when the location and size of a lock case interferes with the fixing of a pull handle, the lower end may be positioned up to 1100mm, as shown for lever handles. It is recommended that pull handles should be a least 400mm long.*



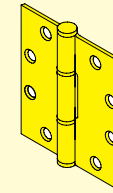
## Source

BS 8300 6.5.1 and figure 17; AD M 2.17 c & d (entrance doors) AD M 3.10 d & e

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All doors - hinges

Hinges with low friction bearings should be considered where opening force is to be minimised. Position of hinges should be in accordance with BS 4787-1.



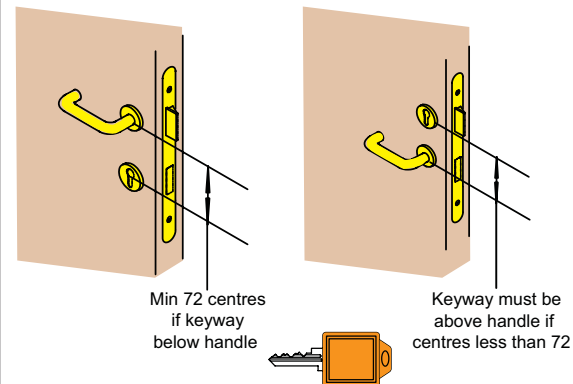
BS 8300 6.5.2

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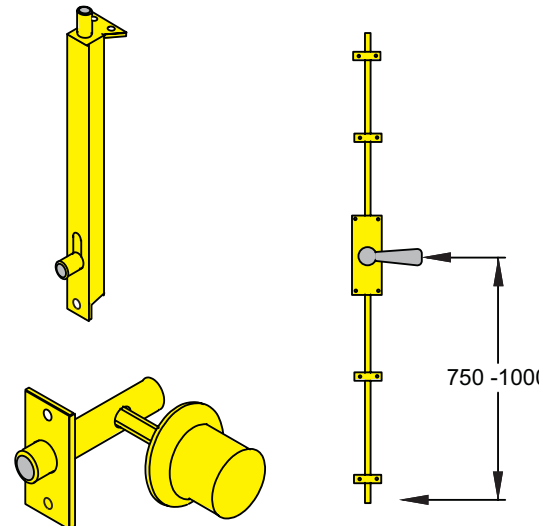
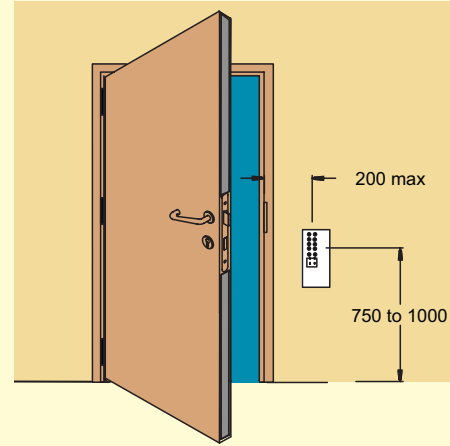
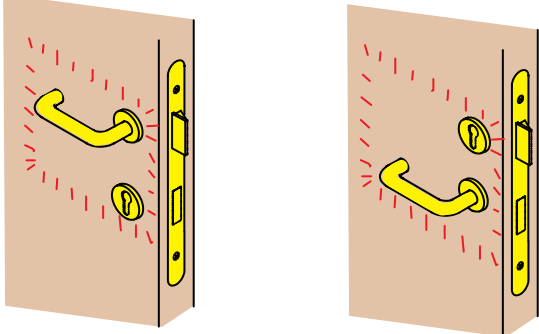
Security hardware

Lock cases should either have minimum 72mm centres or the keyway should be above the handle.

Key bows should be easy to grasp.



BS 8300 6.5.3.2, 3 & 4

	Application	Requirement		Source
18	Security hardware - door bolts	<p>Preferred door bolt types are:</p> <ul style="list-style-type: none"> <li>• knob slide bolts with free moving slide action</li> <li>• rack and pinion mortice bolts with fixed knobs</li> <li>• espagnolette bolts with a single handle mounted between 750mm and 1000mm from the floor.</li> </ul>		BS 8300 6.5.3.2, 3 & 4
19	Access control systems	<p>Door entry systems and entry phones should be positioned so as to be accessible to wheelchair users; the activation pad of an entry system should be on the latch side of the door within 200mm of the frame and be between 750mm and 1000mm from the floor.</p>		BS 8300 6.5.4 & 5
NB	Visual contrast	<p>AD M recommended that, for partially-sighted persons, a difference in light reflectance between two surfaces of 30 points (on a scale where 0 is black and 100 is white) would give adequate visual contrast. Recent research sponsored by GAI on samples of door furniture has indicated that a smaller difference, 20 points, is generally adequate.</p>		GAI technical update no. 3