

The DHF Guide to Approved Document M

For buildings other than dwellings



A summary of the principal issues raised by Approved Document M prepared by the DHF

Revised edition to take account of BS 8300: 2009



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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

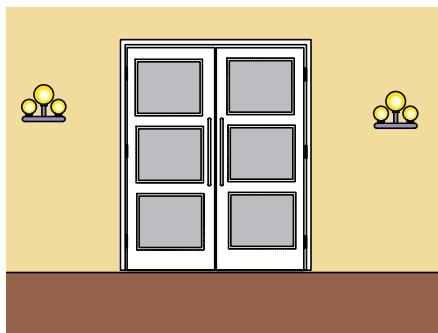
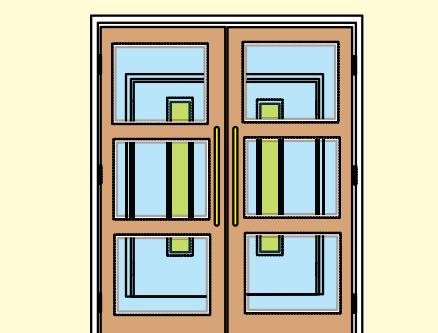
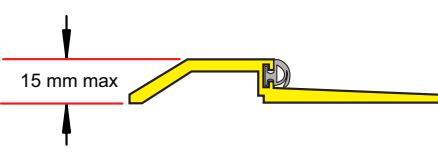
construction products bearing the CE mark under the Construction Products Directive (89/106/EEC). A product can only carry the CE marking under this directive once a harmonised European technical specification exists for products of the relevant type, and the necessary evidence of conformity has been 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. The relevant British Standard, BS 8300, was revised in 2009 and consequently **all references to BS 8300 should be read as being to BS 8300: 2009**.

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

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 adjacent accessible door, which should be a swing, sliding or folding door, identified and signed to show that it is accessible (see also further information in BS 8300 6.3.5).

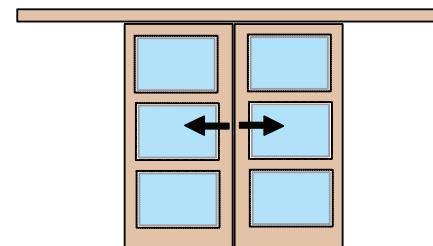
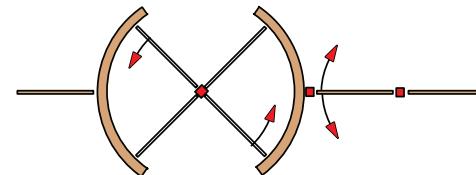
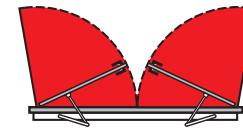
d) An entrance lobby or air lock system.

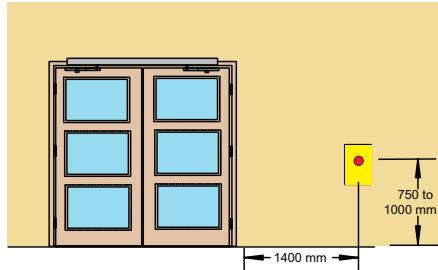
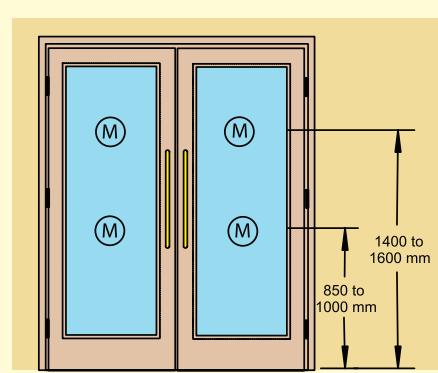
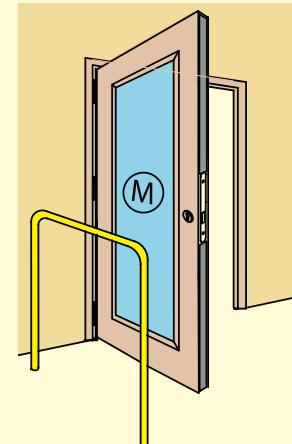
e) A latched door with a low power door closer.

Source

AD M

BS 8300 6.3



Application	Requirement	Source
5 Power operated doors	<p>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. They should be located as close to the door as possible without causing a safety hazard when the door opens. They should contrast visually with the surroundings and be operable with a closed fist.</p>	 <p>BS 8300 6.3.3; AD M 2.21</p>
6 Glass doors	<p>a) The glass must be clearly defined with manifestation at two levels (850 -1000mm and 1400 -1600mm above the floor). This also applies to glazed screens adjacent to the door.</p> <p>b) If the door is capable of being held open, the leading edge must be guarded so that it cannot constitute a hazard.</p> <p>If, when open, the door is within 300mm of, and parallel to, a wall, protection may not be necessary.</p> <p>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.</p>	 <p>AD M 2.24 (entrance doors)</p> <p>AD M 3.10 i,& j (other doors)</p> <p>BS 8300 9.1.5</p> 

Application

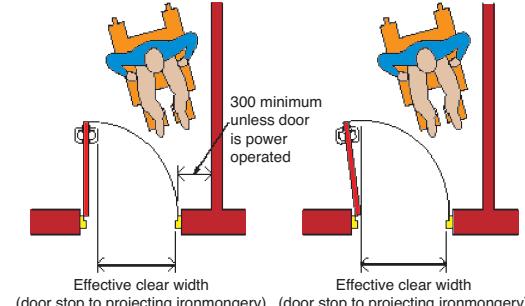
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All doors - dimensions

Requirement

Effective clear width takes into account the projection of ironmongery etc from the face of the door; minimum dimensions as table 2 of BS 8300:2009.

Only hardware that is within the zone affecting a wheelchair user need be considered. For example below, say, 900mm from the floor and 700mm horizontally from the back edge of the door. Hardware outside this zone need not be taken into consideration. This is based on the assumption of the provision of a 300mm side allowance at doors. It also avoids the possibility of measurements being taken to hardware which is significantly outside a wheelchair zone.



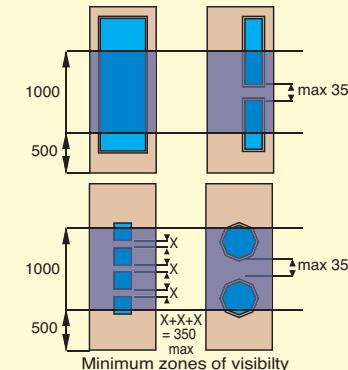
Minimum effective clear widths of doors		
Direction and width of approach	New buildings (mm)	Existing buildings (mm)
Straight-on (without a turn or oblique approach)	800	750
At right angles to an access route at least 1500mm wide	800	750
At right angles to an access route at least 1200mm wide	825	775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

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Entrance doors and doors in corridors and passageways – vision panels

Vision panels are required, dimensioned in accordance with BS 8300 6.4.3 figure 13.

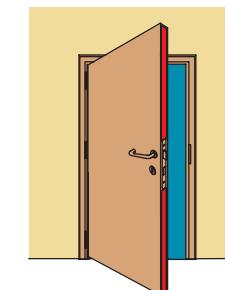
Visibility panels may be of any shape, size or number subject to providing vision in the zone between 500mm and 1500mm from the floor with a maximum interruption of 350mm vertically. Vision panels should be positioned centrally or offset towards the leading edge, which for practical reasons may need to be approximately 180mm in order that locks can be accommodated, particularly on fire doors.



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Doors leading into corridors – visibility

Any door which is likely to be held open should have a visually contrasting leading edge; the architrave should also contrast with the wall.
Examples of a visually contrasting leading edge include:
(i) A minimum 15mm wide intumescent seal in the edge of the door for the full height of the door (excluding locks);
(ii) A contrasting self-adhesive strip covering at least 60% of the door thickness between 500mm and 1500mm above the floor.



BS 8300: 6.4.3 and figure 13

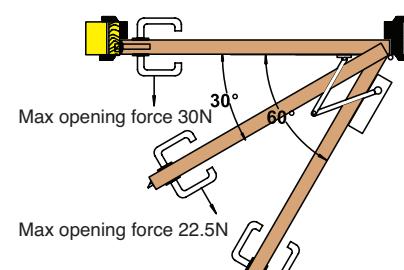
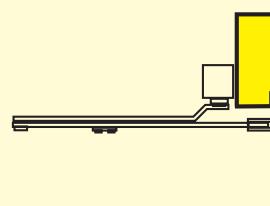
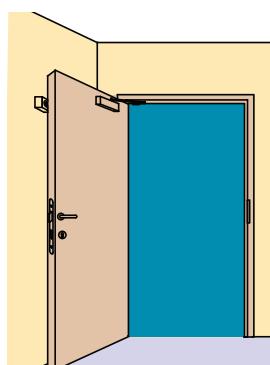
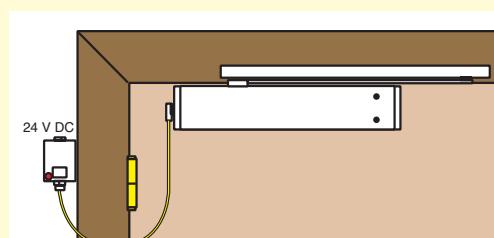
BS 8300: 7.2.5

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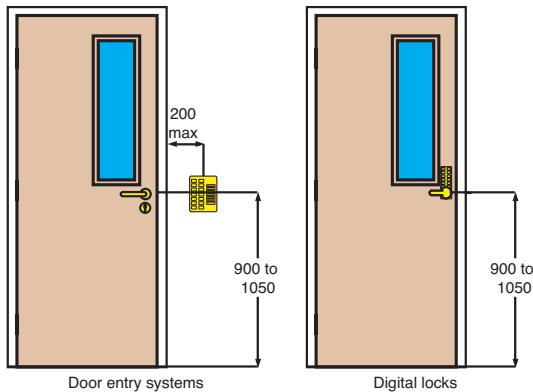
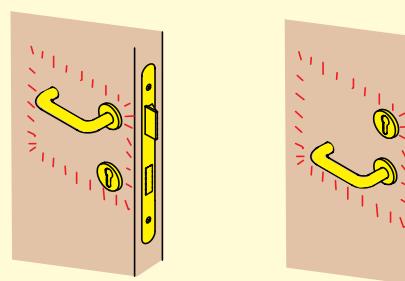
Internal doors – colour

The door frame should contrast visually with the surrounding wall; the leading edges of doors which are not self closing or are likely to be held open should contrast with other surfaces and the surroundings.

AD M 3.10 f & g

Application	Requirement		Source
11 Unpowered doors, including fire doors – opening force	<p>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.</p> <p>Accuracy of measuring instruments used is known to vary and variations of between 2N and 3N are to be expected under site conditions.</p> <p>Controlled door closing devices should conform to BS EN 1154:1997</p>		BS 8300: 6.5.2
12 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
13 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.		BS 8300: 7.3.2
14 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.		BS 8300: 7.3.2

	Application	Requirement	Source
15	All doors - furniture	<p>Dimensions and position of furniture as figures 14 & 15 of BS 8300: 2009. Latches should be operable with a closed fist (eg via a lever handle).</p> <p>Care should be taken in selection of lock and latch furniture to ensure that turn buttons and the like are manageable for all users.</p> <p>All door opening furniture contrasts visually with the surface of the door.</p>	
16	All doors - hinges	Hinges with low friction bearings should be considered where opening force is to be minimised. Hinges should conform to the requirements of BS EN 1935. Position of hinges should be in accordance with BS 4787-1.	
17	Security hardware	<p>Lock cases should either have minimum 72mm centres or the keyway should be above the handle.</p> <p>Key bows should be easy to grasp.</p>	

Application	Requirement		Source
18	Security hardware - door bolts	<p>Preferred door bolt types are:</p> <ul style="list-style-type: none"> • knob slide bolts with free moving slide action • rack and pinion mortice bolts with fixed knobs • espagnolette bolts with a single handle mounted between 900mm and 1050mm from the floor. <p>Lever action flush bolts</p>	BS 8300 6.5.5
19	Panic and emergency exit devices	<p>Panic and emergency exit devices should comply with BS EN 1125:2008 (for panic devices operated by a horizontal bar) or BS EN 179:2008 (for emergency devices operated by a lever handle or push pad). Mounting height should be as for door handles (see 15 above).</p>	BS 8300 6.5.6
20	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 200m of the frame and be between 900mm and 1050mm from the floor.</p>	BS 8300 6.6.1 & 2
21	<p>Digital locks</p> <p>Digital locks should have a lever handle and be positioned between 900mm and 1050 from the floor.</p> <p>Keypads positioned to be convenient for wheelchair users may be awkward for tall people and vice-versa; consequently, consideration should be given to alternatives such as swipe cards or proximity readers.</p>	 <p>Door entry systems</p> <p>Digital locks</p>	BS 8300: 6.6.3
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. However, a difference of 15 points between door opening furniture and a door is acceptable, because the 3-D form of the furniture helps to distinguish it.</p> 	BS 8300: 6.5.1 note 2