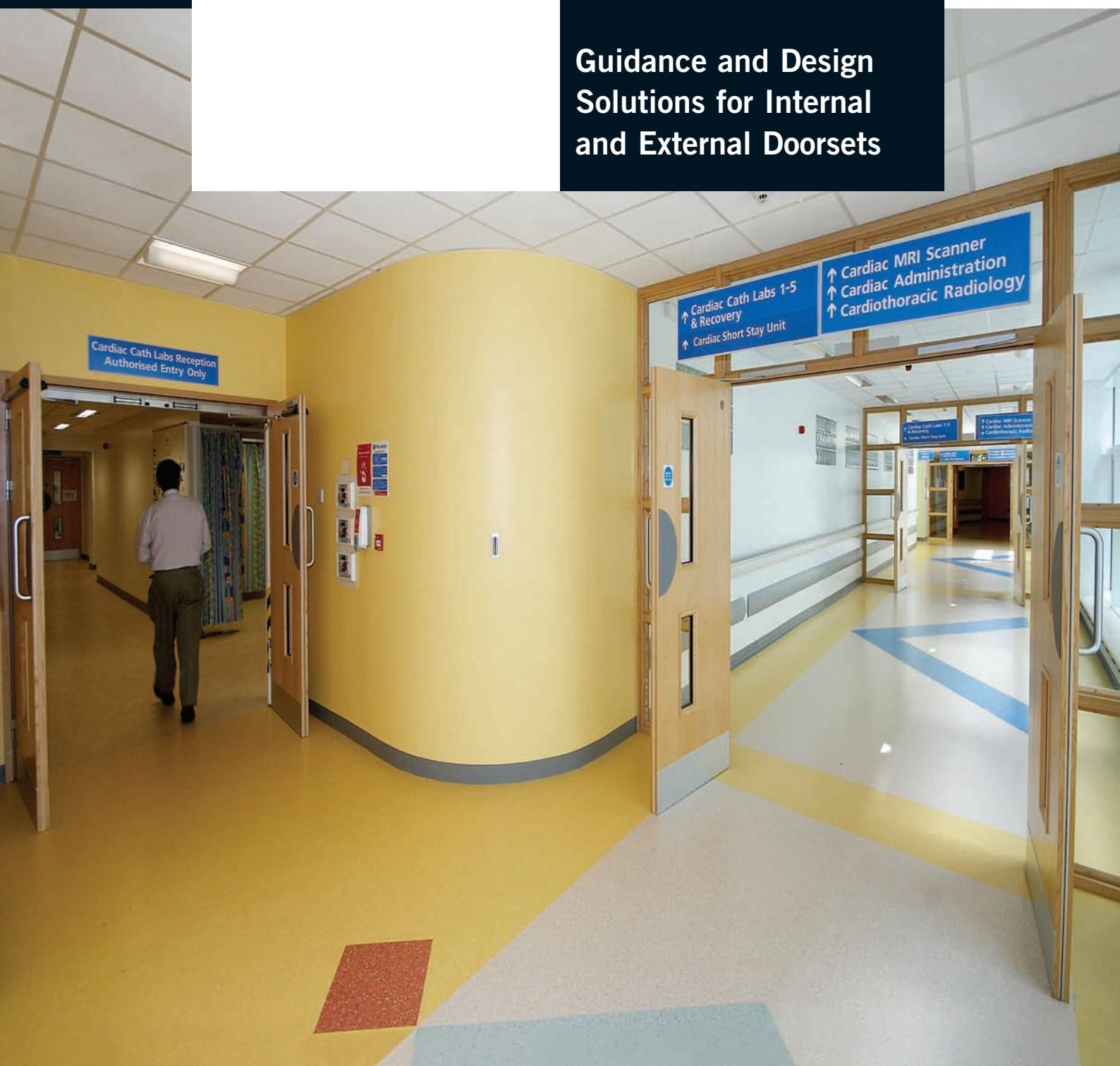


DORMA for Healthcare

Guidance and Design
Solutions for Internal
and External Doorsets



Contents



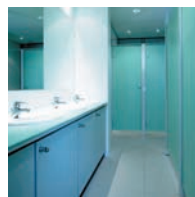
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Full technical documentation and specifiers guides are available for all the products listed within this brochure.



■ Automatic Doors for Healthcare



Automatic doors are the ideal solution to access into and around a building to meet the spirit of the Disability Discrimination Act (DDA). Approved Document M states “A powered door opening and closing system, either manually controlled or automatically operated by sensors, is the most satisfactory solution for most people.”

Automatic doors provide a means of opening and closing doors without the need for physical effort. For many people who lack physical ability or staff who are pushing trolleys or wheelchairs, heavy manual doors can be a barrier to access. Automatic doors remove that barrier.

DORMA: Providing solutions for today's healthcare buildings



Automatic Sliding Doors

The DORMA ES200 sliding door is an excellent access solution and ideal in areas of heavy traffic.

The ES200 can be used internally or externally, as single or bi-parting doors, and can be telescopic and curved. It can be linked to an access control system if you wish to restrict entry to authorised personnel only.



BST Curved Sliding Doors are ideal for creating a lobby situation to help control heat loss from the building



The DORMA CS80 Magneo features a unique magnetic linear drive. It is virtually silent in operation making it ideal for use in areas of patient care.





Automatic Swing Doors



The DORMA ED 250 swing door is perfect for both new doors or retro fitted to existing doors. The unit is suitable for both internal and external use.

The material required to produce an ED 250 has been reduced by 40% compared to our previous generation of swing door operators. The lower weight has a positive effect on the shipping of goods and thus reduces unnecessary CO₂ emissions.



The ED250 comes with a slide arm or projecting arm dependant on whether the unit is mounted on the pull or push side respectively. For double doors, a single continuous cover can be used with a pair of operators.





Automatic Low Energy Doors

The new DORMA ED 100 is perfect in areas of low traffic or where the normal operation of the door is a manual operation.

The ED 100 allows automatic operation of the door by those who need assistance. This can either be done by use of a push pad or patients who require assistance opening the door can be provided with a remote control.

Space Saving Doors

DORMA offer both folding doors (FFT) and balanced doors (RST) which are ideal for situations where space is restricted.



The DORMA RST has a unique and special swivelling action, elegant design and excellent space-saving characteristics.

The supporting structure and the open door occupy only a hand's breadth, and even at its maximum, the sweep of the door is only a few centimetres outside the door line.



Door Controls for Healthcare

A series of Health Technical Memoranda (HTM) provide specifications and design guidance on building components for health buildings in addition to Building Regulations. Ironmongery is covered under HTM59 and it starts with the following general guidance:-

2.1 Ironmongery represents a very small proportion of the capital cost of any building, but it can have a disproportionate effects on the users' perception of the building and the satisfaction they feel in its use. To be satisfactory, ironmongery must be:-

- appropriate to its function
- of the right grade and quality
- well designed and unobtrusive
- correctly fitted
- properly maintained

2.2 Health buildings are used by a wide cross-section of people – both general public and staff – ranging from the young and able-bodied to the elderly and infirm. But, by virtue of their function, it is likely that healthcare facilities have a higher proportion of physically weakened and disabled users coming through their doors than any other type of building.



Fire Doors

The majority of doors within a Healthcare Facility will be fire doors.

Their purpose is to prevent the spread of fire through a building. As such it is literally a 'matter of life or death' that such doors are securely closed should a fire occur. It is therefore vital that the correct ironmongery is specified which ensures that fire requirements are met in addition to access requirements.

There are 3 main considerations in specifying the correct door controls within a Healthcare project:-

- does it satisfy the fire regulations
- will it enable doorsets to meet the requirements of ADM/BS8300
- does it meet the requirements of HTM59

It is therefore essential that the door closer is

- CE marked to BS EN1154
- CERTIFIRE approved (as detailed in HTM59)
- Produces an opening force of 30N or less between 0° and 30° of opening and 22.5N or less between 30° and 60° of opening when fitted at size EN3 (minimum size for a fire door under BS EN1154)

BS EN1154 Controlled Closing Devices.



The DORMA Door Closers listed within this brochure are all CE Marked to BS EN1154. All closers have also been cycle tested to over 1 million cycles without showing any appreciable wear.

CERTIFIRE Approved.



CERTIFIRE is an independent approvals board for the testing of fire doors and all associated ironmongery. It is worth noting that an approved door will become invalid if approved ironmongery is not fitted. All DORMA Door Closers are CERTIFIRE approved.

It is therefore crucial that when selecting ironmongery for Healthcare Projects that products not only comply with Product Standards but also enable ease of use by all users within any Healthcare Facility.

**Cardiac Cath Labs 1&2
and Recovery
Authorised Entry Only**

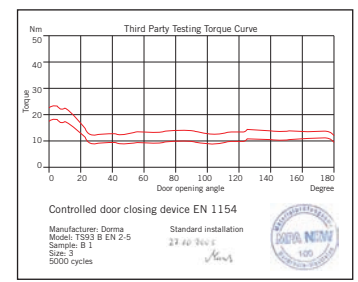


**Approved Document M
and BS8300**

The requirement is that a person is not disadvantaged in gaining access into and around a building. The specific performance of doorsets in meeting this requirement is detailed within Approved Document M (ADM) in England and Wales / Section 3 in Scotland / Part R in Northern Ireland, of the Building Regulations and BS8300: 2001, incorporating Amendment No.1.

This states:
 "...a doorset must produce an opening force of below 30N between 0° and 30° and below 22.5N between 30° and 60°...".
 On a fire door this must be achieved at minimum spring strength of EN3.
 Not all door closers available in the market can meet the criteria.

All DORMA door closers carry third party test evidence to demonstrate their ability to enable doorsets to comply with the requirements of ADM and BS8300.



Further considerations in selecting door closers



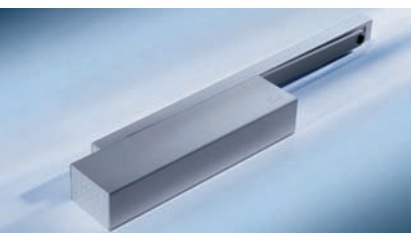
Backcheck
 Backcheck ensures the safe deceleration and restraint of a door which has been aggressively opened thereby protecting both the door and the surrounding area. This can be a significant factor in reducing the

overall building maintenance costs as walls, doors and projecting ironmongery will not have to be repaired and replaced as often. Most DORMA door closers feature "Thinking Backcheck" which allows a door to be fully opened through normal operation without incurring any increased resistance. If however the door is *thrown open* in an abusive manner, the "Thinking Backcheck", which is directly proportional to the acceleration of the door when operated, will cushion and arrest the door at 85° to 90° to prevent damage to any adjacent wall, door furniture or the door itself.



Delayed Action
 Delayed Action allows the door to stay open longer allowing more people or slow moving 'traffic' through the door before it begins to close. With Delayed Action, the door is opened and then delays for

a set period of time before closing. The delay is adjustable by valve and can be adjusted to suit each application. This can be very useful, allowing easy movement of patients who may be on a bed, trolley or in a wheelchair. Delayed action when applied to these situations prevents damage to the door in addition to ease of use by the operator and ease of movement through the door.



TS 93 in Contur Design:
Silver, Coloured, Stainless
Steel and Polished Brass

DORMA TS 93 EN2-5 Cam Action Closer

- Adjustable thinking backcheck
 - Adjustable delayed action
 - CERTIFIRE approved for 2 hours on timber doors and 4 hours on metal doors CF119
- ADM/BS8300* Compliance:*
- Minimum door width when fitted at size EN3 = 767mm
 - Opening force at the leading edge when fitted at size EN3 on a 926mm wide door = 24.85N



TS 93 with Softline cover:
Silver, Coloured, Stainless
Steel, Polished Chrome and
Polished Brass

DORMA TS 92 EN2-4 Cam Action Closer

- CERTIFIRE approved for 2 hours on timber doors and 4 hours on metal doors CF119
- ADM/BS8300* Compliance:*
- Minimum door width when fitted at size EN3 = 733mm
 - Opening force at the leading edge when fitted at size EN3 on a 926mm wide door = 23.75N

DORMA ITS 96 EN2-4 Cam Action Closer

- Concealed door closer
 - CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors CF140
- ADM/BS8300* Compliance:*
- Minimum door width when fitted at size EN3 = 733mm
 - Opening force at the leading edge when fitted at size EN3 on a 926mm wide door = 23.75N



The ITS 96 is concealed
within the door leaf and frame
and is not visible when the
door is shut.

DORMA ITS 96 EN3-6 Cam Action Closer

- Concealed door closer
 - CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors CF140
- ADM/BS8300* Compliance:*
- Minimum door width when fitted at size EN3 = 867mm
 - Opening force at the leading edge when fitted at size EN3 on a 926mm wide door = 28.10N

Cam Action Door Closers

The traditional type of door closer is known as a rack and pinion closer which must be used with a projecting scissor arm.

However DORMA recommends the selection of cam action door closers instead of these for two reasons:

- Due to their unique cam action they can achieve the requirements of ADM and BS8300* compliance within a greater tolerance than traditional rack and pinion door closers. This is particularly important as hinges and intumescent seals will provide additional resistance to opening and closing.
- Cam action closers have been especially designed for use with slide arm and channels. Traditional rack and pinion door closers can only operate efficiently with standard projecting scissor arms. This combination of slide arm and channel with cam action will result in ease of operation by all users, is less vulnerable to abuse and vandalism and will therefore lead to improved life cycle costs.



Approved Document B



Approved Document M

* Also Section 3 in Scotland & Part R in N. Ireland.

■ □ Rack and Pinion Door Closers



Rack & Pinion full cover design

DORMA TS 83 EN2-5

- Adjustable thinking backcheck
 - Adjustable delayed action
 - CERTIFIRE approved for 2 hours on timber doors and 4 hours on metal doors CF118
- ADM/BS8300* Compliance:*
- Minimum door width when fitted at size EN3 = 833mm
 - Opening force at the leading edge when fitted at size EN3 on a 926mm wide door = 26.99N

DORMA TS 73 V EN2-4

- Adjustable thinking backcheck
 - CERTIFIRE approved for 2 hours on timber doors and 4 hours on metal doors CF117
- ADM/BS8300* Compliance:*
- Minimum door width when fitted at size EN3 = 792mm
 - Opening force at the leading edge when fitted at size EN3 on a 926mm wide door = 25.64N



Rack & Pinion standard design

DORMA TS 72 V EN2-4 TS 72 V BC EN2-4

- Adjustable thinking backcheck (TS 72 V BC only)
 - CERTIFIRE approved for 2 hours on timber doors and 4 hours on metal doors CF268
- ADM/BS8300* Compliance:*
- Minimum door width when fitted at size EN3 = 833mm
 - Opening force at the leading edge when fitted at size EN3 on a 926mm wide door = 26.99N



Approved Document B



Approved Document M

■ □ Floor Springs



Floor spring in-situ

Floor springs are another alternative to overhead door closers and are suitable for single or double action doors. They provide ease of operation and as they are concealed within the floor - good protection against door closer abuse or vandalism. The DORMA Floorsprings listed within this brochure are all CERTIFIRE Approved and CE Marked to BS EN1154.

DORMA BTS 75V EN1-4

- Universal for single or double action doors
 - Backcheck
 - Optional adjustable delayed action model available
 - CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors CF127
- ADM/BS8300* Compliance:*
- Minimum door width when fitted at size EN3 = 767mm
 - Opening force at the leading edge when fitted at size EN3 on a 926mm wide door = 24.85N



BTS75V floor spring



Approved Document B



Approved Document M



Situations when you would prefer not to keep the door closed

Free Swing Devices

When electro-magnetic free swing devices are fitted to doors they allow doors to be operated without the user feeling any resistance from the door closer mechanism. In addition to this they allow the door to be left in any position, performing as if the door had no closing device fitted.

Upon activation of the fire alarm or power failure (fail safe) the Free Swing device will close the door from any position it was left in, and then perform like a normal door closer until the alarm is de-activated or the power restored.

Ideal for situations such as care homes where room occupants do not want to feel cut off and would like their door left open (despite the fact it is a fire door). With conventional door closers, people often resort to wedging the door open which is highly dangerous. Free Swing door closers ensure the door can be left safely ajar.

All the DORMA free swing devices listed within this brochure are CERTIFIRE Approved and CE Marked to BS EN1155.

As a free swing door closer operates with no opening resistance it is compliant with the requirements of ADM and BS8300*.

* Also Section 3 in Scotland & Part R in N. Ireland.



Situations when you would prefer not to keep the door closed

Electro-Magnetic Hold Open Devices

When electro-magnetic hold open devices are fitted to doors they dramatically help to improve access in and around any building, particularly in corridors.

They allow doors to be held open during normal use and close upon activation of the fire alarm or power failure (fail safe). Once activated, the door closer will close the door and then perform as a normal door closer until the alarm is de-activated or the power restored. Ideal for corridors with heavy 'traffic'.

All the DORMA electro-magnetic devices listed within this brochure are CERTIFIRE Approved and CE Marked to BS EN1155 (Electronically powered hold-open devices for swing doors).

They are perfect for meeting the requirements of ADM and BS8300*.

In addition they reduce the life cycle costs as the doors are rarely operated other than for periodical maintenance checks, or if the power is switched off at night.

* Also Section 3 in Scotland & Part R in N. Ireland.

Electro-Magnetic Door Closers

Free Swing devices available:

DORMA TS 99
EN2-5

DORMA TS 73 EMF
EN4/5/6

DORMA BTS 80 FLB
EN4/5/6

Hold Open devices available:

DORMA EMF Channel with
DORMA Cam Action Closers

DORMA TS 73 EMF
EN4/5/6

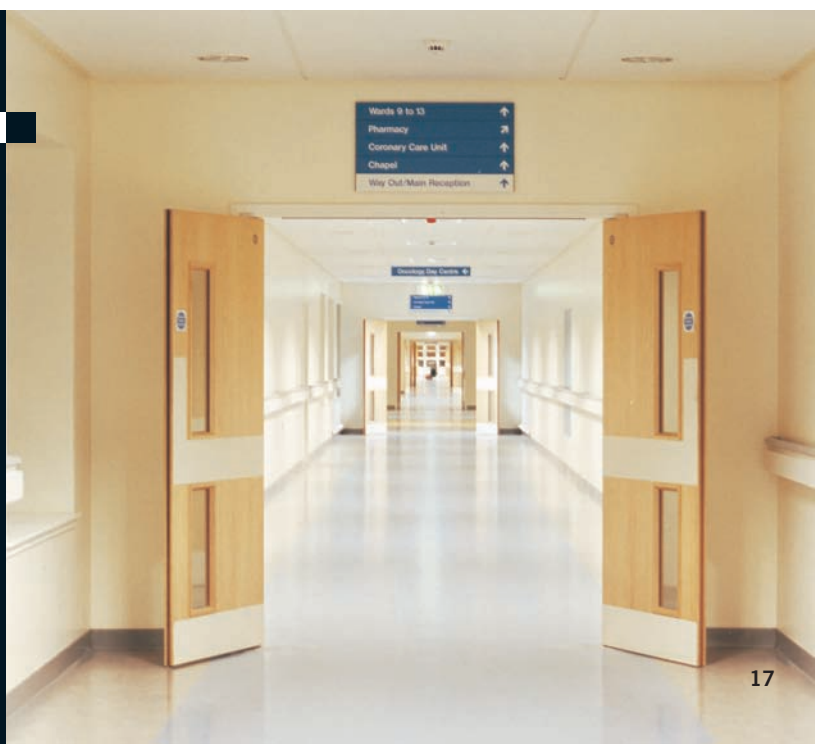
DORMA BTS 80 EMB
EN4/5/6



Approved Document B



Approved Document M





Panic Hardware

Panic hardware fitted to the final exit doors of a healthcare building has to combine the requirements for safety in allowing egress at any time and yet security, in preventing unauthorised entry or unauthorised egress.

Final exit doors are often misused as they can provide a 'shortcut' to other areas within the grounds; this often compromises security, especially if they do not lock correctly after use. Even an authorised user may experience difficulty in locking the doors correctly.

It is therefore critical that panic devices are capable of self locking correctly on every operation and the simplest way to ensure this is by using Pullman type latches.



PH Series:

DORMA PHB 3000 Touchbar

DORMA PHA 2000 Crossbar

The PH series is a modular panic hardware system which uses the same chassis for either a panic latch or a panic bolt. The panic bolt application also allows the option of 2 or 3 point locking for added security. Panic latches may be changed into panic bolts with the addition of rods and latches or vice-versa.

CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors CF319/CF318



PHA2000 crossbar

AD Series:

DORMA AD 4300 Panic Latch

DORMA AD 4400 Panic Bolt

DORMA AD 4100 Concealed Panic Bolt

The AD series of touchbar panic hardware is extremely robust. It can be easily linked to various options such as electronic bolt retraction or a battery alarm device.

CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors CF279



AD4000 series touchbar



Approved Document B

These latches operate on the same principle as a latch within a mortice lock. When the door closes they engage onto the strike plate fitted to the frame, thus avoiding the need to manually engage the panic device into its locked position after use.

As a door closer should be used on such doors, operation is simple and easy in respect of the doors becoming secure after use; the door closer will close the door and the panic device will automatically lock. Anti-thrust devices on the Pullman Latches ensure they deadlock once engaged.

In addition to these standard safety and security features, further options are available.

Operation by swipe card or other electronic device is also possible to gain authorised access or even egress. Electronic Bolt retraction (ES) automatically unlocks the device when electronic access devices are used. This means that no lever or knob is required externally, reducing the chances of vandalism or forced entry. Only a pull handle and cylinder (if required for manual override) is required externally. The DORMA AD4000 series of panic hardware are also available with alarms to inform staff immediately of any unauthorised use.

Some final exit doors may be required to be kept open at certain times of the day, here Dogging devices can be operated which keep the latches withdrawn and allow access to all users from either side without having to operate the panic device or any external lever. Dogging is available as a standard feature if required. For additional security, Cylinder Dogging (CD) can be used.

The DORMA Panic Hardware Devices listed within this brochure are all CE Marked to BS EN1125.



DORMA Sashlock

- Lever handle and key operation
- Nightlatch function as standard (latchbolt can be withdrawn by cylinder operation)
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors†



DORMA Deadlock

- Retraction of bolt with key only
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors†



DORMA Latch

- Lever handle operation
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors†



DORMA WC Sashlock

- Lever operates latch both sides. Turn operates deadbolts one side only (emergency release on outside)
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors†



DORMA Nightlatch

- Lever one side only. Retraction of latch with key only on the other side
- 55mm or 60mm backset
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors†



Approved Document B



Approved Document M

†CERTIFIRE certification requires intumescent to be used on 1 hour timber doors, these packs are available from DORMA and ensure correct performance if subjected to fire. No intumescent is required for 1/2 hour timber doors or for metal doors.

Locks

Under ADM and BS8300*, locks are required to have a minimum backset of 55mm and centres of 72mm (distance from lever handle follower to key centre) to ensure ease of operation.

The DORMA Premier Locks detailed are all available with either 55mm or 60mm backsets and all have 72mm centres.

Locks should have a low engagement force to assist doorset compliance with ADM and BS8300*.

Additional resistance from the latchbolt during closing can result in the door not closing fully, particularly as door closing forces are adjusted to their minimum in order to obtain low opening forces.

Increasing the closing force to ensure the latchbolt engages correctly may well result in the opening forces exceeding those required by ADM and BS8300*.



DORMA Premier Locks are prepared to take 'bolt through' lever furniture which is considered essential for healthcare projects.

The **DORMA Premier Lever Furniture** range has bolt-through fixings as the lever often takes a great deal of body weight as some people with disabilities will lean heavily on door furniture for support.

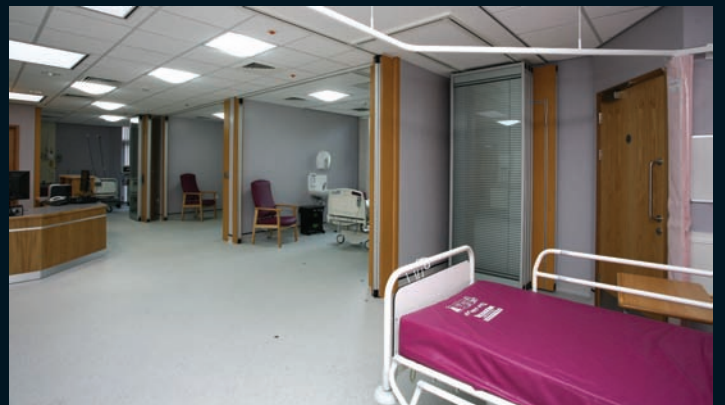


The Premium range exceeds the recommended minimum lever diameter of 19mm, which together with a 'return to door' design ensures the lever can be operated by those with impaired dexterity.

* Also Section 3 in Scotland & Part R in N. Ireland.



Manage your space





The lightweight panels (up to 50% lighter than conventional movable walls) makes it easy for anyone to move the system into position.

The ComforTronic control system automatically extends the sound insulation sealing strips to ensure a perfect seal every time – no need for manual winding.

Moveo Glass

This unique system incorporates glass panels to ensure privacy when it is needed or to allow light to flood through.



With increasing demands for adaptable space management within healthcare establishments, movable walls offer the ideal solution.

They enable wards to be divided according to specific needs creating private treatment rooms, bedrooms or open wards.

DORMA MOVEO is a unique system which offers an unprecedented lightweight, flexible and easy to operate movable wall solution with sound insulation up to 55dB



Communal shower cubicles



A wide range of individual shower cubicles



Glass cubicles and washrooms

The Cristallo range of cubicles offers a combination of functionality with maximum hygiene.

DORMA can provide WC cubicles, vanity units, wall cladding and shower cubicles.

Glass cubicles offer significant benefits over conventional cubicles:

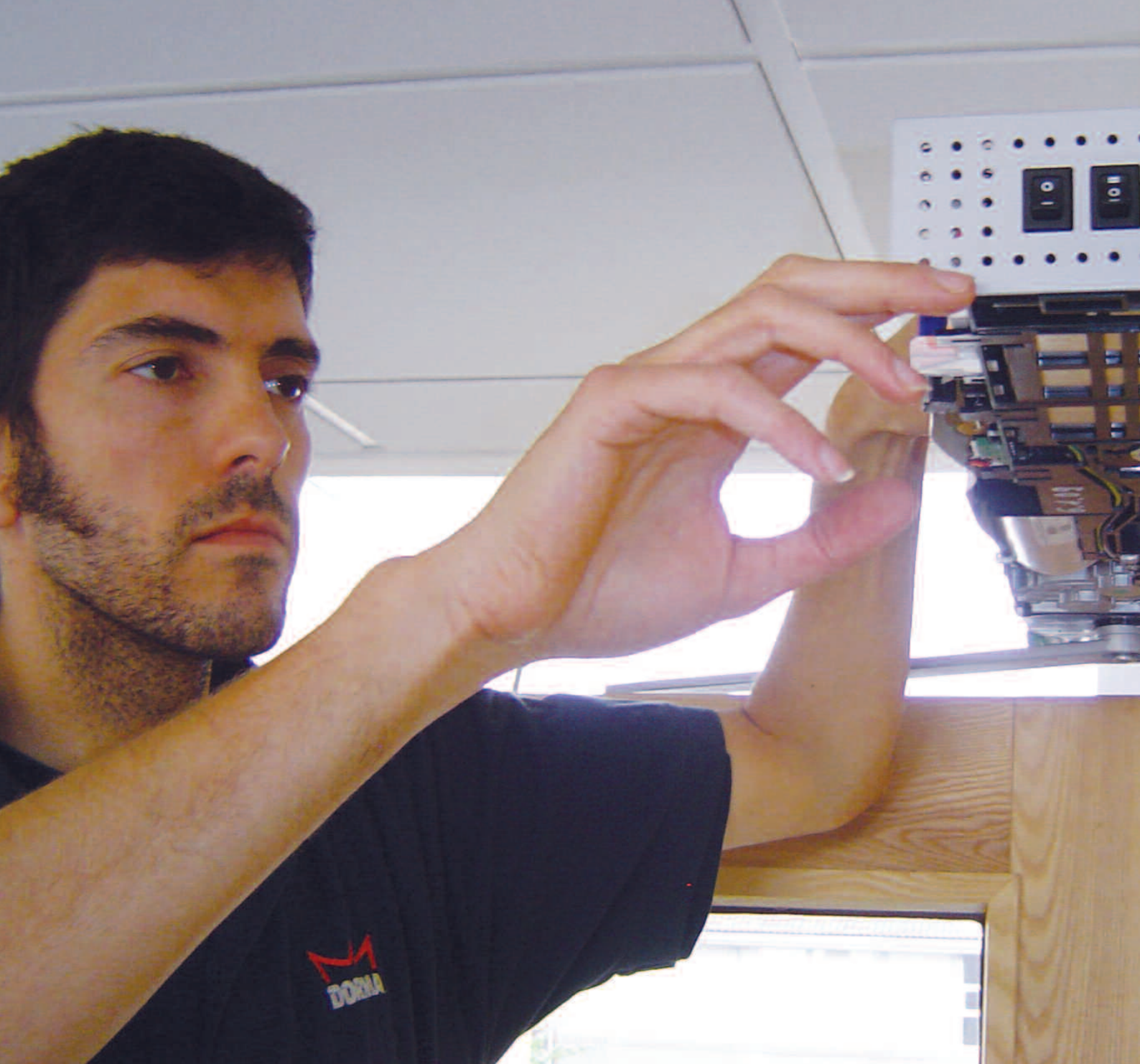
- Hygienic, easy to clean surface
- Ideal for wet areas
- Less prone to vandalism



Glass door systems

DORMA also offer a wide range of glass sliding or swing door systems.

Ideal for offices they allow natural light to flood through a building. Frosted glass can be used to provide privacy where required.



Service – all the back up you need



The DORMA package offers co-ordinated design backed up with lifelong reliability through our service division.

We can offer a range of maintenance programs and 24-hour emergency cover using our nationwide network of fully employed and trained engineers. We can maintain all DORMA and non-DORMA automatic doors, manual doors and movable walls.

Reactive Servicing

DORMA provide reactive servicing and maintenance on a non-contracted basis. Basically, this means that if you have a breakdown or malfunction you can call us in to repair or replace the faulty door even if you don't have a service contract with us.



Preventative Servicing

Our planned or preventative servicing and maintenance is undertaken on a contracted basis.

Regular door maintenance helps prevent accidents, reduces breakdowns and prolongs the life of the operator. An ordinary door failing or not operating correctly is unsafe, or at best annoying, on a fire door it is potentially deadly.

DORMA has gained four major H&S accreditations; Bovis Lend Lease – Sub-contractor Accreditation Scheme, Constructionline, SAFEcontractor and Contractor Health and Safety (CHAS). They form part of the company's comprehensive H&S strategy. All our engineers undergo full training that includes a competency examination for compliance with the British Standard for Powered Doors for Pedestrian Use BS7036 (1996).





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