Fire Door Provision In UCL Buildings - what you need to know:

### Mandatory
- **Fire Door Provision In UCL Buildings - what you need to know:**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>Mandatory</strong></td>
<td>- all doors on main traffic and circulation routes, corridors, lobbies or stair enclosures to be provided with <strong>Vision Panels (VP)</strong>;</td>
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<td><strong>Mandatory</strong></td>
<td>- all doors provided on Laboratory and Sleeping Accommodation rooms must meet Fire Door (FD30) standard;</td>
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<td><strong>Mandatory</strong></td>
<td>- blue door signs (or incorporated into manifestation) must be provided for all fire doors as a legal instruction (see table below);</td>
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<td><strong>Mandatory</strong></td>
<td>- auto opening devices for Mobility Impaired Persons (MIP) on certain fire doors or locations may <strong>NOT</strong> be acceptable (See UCL T/Note TN001);</td>
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<tr>
<td><strong>Mandatory</strong></td>
<td>- clear pyro fire glazing must be clearly identified by means of an ‘Acid Etching’ in the corner of the pane giving the trade name &amp; marked with BS 476 Part 22. If acid etched trade name / BS standard is <strong>NOT</strong> visible, then the glass will <strong>not</strong> be accepted as meeting Fire Rated Glazing (FRG) and will need to be replaced for correct specification and clear identification;</td>
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### Unacceptable Opening Directions
- fire doors on circulation routes **NOT** to open in the direction of escape (unless exceptional circumstances i.e. heritage) - inward opening doors will limit room capacity to a maximum of 60 persons only; |

### Unacceptable Double Swing Fire Doors
- in locations other than doors forming a mid-corridor smoke break; |

### Unacceptable Vision Panels (VP)
- not providing VP in doors to ‘Inner Rooms’, laboratories, kitchens, circulation routes and areas where hazardous items such as chemicals or glassware pass through; |

### Unacceptable Perko Fittings
- not normally acceptable on standard doors (but may be acceptable on 1/2 leaves due to size restrictions); |

### Unacceptable Air Transfer Grilles / Letter Boxes
- fire doors shall not have grilles or letter boxes (no alternative to be discussed with UCL Fire Safety Manager); |

### Acceptable
- **Small Leafs** - fire doors with 1/2 leaves to be fitted with a self-closing device either using an overhead unit where practical or Perko type unit for smaller leaves; |
- **Inner Rooms** - generally doors to ‘Inner Rooms’ should be provided with VP; |
- **Smoke Seals** - recommended that the smoke seals fitted to all new & upgraded fire doors are the **brush type** and **NOT** rubber blade type; |
- **Security Doors (SR2/SR3/SR4)** - fire rated use **Stafford Bridge Doors** (see below); |
- **Security Doors (SR2/SR3/SR4)** - fire rated use **ASSA Abloy Doors** also (see below); |

### Definition of a Fire Door
- a door assembly, which is designed to hold back fire and smoke for a designated period and has been tested under conditions for door assemblies described in British Standard 476 Part 22; |

### Fire Door Guidance
- British Standard **8214-2008** (Code of Practice for Fire Door Assemblies).
1.0. General Information

1.1. Standards - UCL's general fire door design standard preference for the fire performance of timber door sets either:

(a). Use doors and door sets meeting BS 476: Part 22.

(b). Use doors and door sets meeting BS EN 1634-1.

1.2. Third Party Installation - for compliancy, fire doors and fire door sets to be installed under UKAS third party accreditation:

- The most robust third party scheme is Building Research Establishment (BRE) Loss Prevention Certification Board standard for installation **LPS1271**.
- Exova BM Trada site installer scheme is acceptable under their manufacture Q-Mark scheme.

1.3. **Fire Door Key ([FD30(S)SC & VP])**

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<thead>
<tr>
<th>Key:</th>
<th>Description:</th>
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<tbody>
<tr>
<td>FD30</td>
<td>A Fire Door with 30 minutes Integrity properties (also shown as FD30) and complete with intumescent seals</td>
<td>FD60</td>
<td>A Fire Door with 60 minutes Integrity properties (also shown as FD60) and complete with intumescent seals</td>
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<tr>
<td>(S)</td>
<td>Smoke Seals (use brush type as generally found to wear better than rubber blade types)</td>
<td>SC</td>
<td>Self-closing device complying with BS EN 1154: Door Closers</td>
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<tr>
<td>FRG 30 / 60</td>
<td>Fire Resisting Glazing - 30 minutes Resistance including integrity (FRG 30 or FRG 60) Fire Resisting Glazing integrity and insulation (FRG 30/30) or (FRG 60/60)</td>
<td>FD30(S) SC &amp; VP</td>
<td>FD30(S)SC &amp; VP - Fire Door 30 or 60 (Smoke Seals) Self Closing &amp; Vision Panel required</td>
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<tr>
<td>VP</td>
<td>Vision Panel - required (if within a fire door then glazing must meet FRG 30/60)</td>
<td>PB</td>
<td>Push Bar - emergency opening device complying with BS EN 1125</td>
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1.4. **Fire Door Signs** - all fire doors **MUST** be signed using one of the following standard signs (as a minimum it is recommended 80 mm x 80 mm Ridged Plastic signs in size with 4 x screw holes) but, others styles may be provided appropriate to door design & surfaces:

<table>
<thead>
<tr>
<th>Sign, Colour &amp; Pictogram</th>
<th>Description, Uses and Conventions</th>
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<tbody>
<tr>
<td>Fire door keep shut</td>
<td>1. ‘Fire Door Keep Shut / Closed’ - positioned at eye level, on both faces of each fire doors leaf that are fitted with a self-closing device - include any ½ leafs which should also be signed in addition to the main door leaf.</td>
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<tr>
<td>Keep locked shut</td>
<td>2. ‘Fire Locked Shut’ - used on fire doors that <strong>are not fitted</strong> with self-closing devices (for example cleaner’s cupboard, some types of stores, plant rooms &amp; service risers) - sign fixed to outer door face, at eye level.</td>
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<tr>
<td>Automatic fire door keep clear</td>
<td>3. Automatic Fire Door Keep Clear - used on doors connected to ‘fire door hold open devices’ that release the doors on activation of the fire alarm system. Signs to be placed on the visible open leaf at eye level when the door is held open by device; this is to avoid obstructing the fire door on being released automatically. 3a. Provide a <strong>fire door keep shut</strong> sign on the door leaf facing to the wall at eye level when held open.</td>
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<tr>
<td>Fire exit keep clear</td>
<td>4. Fire Escape Doors - provided generally on external door leafs to prevent obstructions that might impede the opening of the fire escape door in an emergency. Fitted on the external face of a fire exits to prevent vehicles park to close, cycles or rubbish bins being placed in front of doors etc.</td>
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<td></td>
<td>5. Manifestation Incorporating Fire Signage - on fire rated glazed partitions &amp; door sets we strongly recommend that the fire signs above be incorporated into the ‘manifestation’ to ensure compliance.</td>
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1.5. **Door Widths and Means of Escape:**

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<th>Door Widths:</th>
<th>Numbers of persons able to pass through:</th>
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<td>750 mm (absolute minimum width)</td>
<td>60 persons (normal risk)</td>
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<tr>
<td>850 mm</td>
<td>110 persons (normal risk)</td>
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<td>950 mm (minimum width for wheelchairs)</td>
<td>160 persons (normal risk)</td>
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<tr>
<td>1050 mm</td>
<td>220 persons (normal risk)</td>
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<td>Doors greater than 1050 mm wide</td>
<td>1050mm = 220 persons - then add 5mm per person on width greater than 1050mm (e.g. door width of 1500mm - 1050mm = 450mm (450 ÷ 5mm = 90) 220 + 90 = max 310 persons</td>
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- An additional 75 mm should be allowed for each additional 15 persons (or part thereof 15);
2.0. Fire Doors (General UCL requirements and recommendations, which may be in addition to current regulations / guidance):

2.1. Where fire doors [FD30(S)SC&VP] are generally required:

- All doors to escape stair enclosures (both internal & external and protected fire routes); [FD30(S)SC&VP]
- Laboratory and equipment rooms [FD30(S)SC&VP];
- Cleaners' cupboards and storage rooms [FD30(S)];
- Service risers access doors and hatches [FD30(S)];
- Electrical switch rooms / cupboards on means of escape [FD30(S)];
- Plant Rooms [FD30(S)SC];
- ISD / Server Equipment Rooms (some locations only - to be confirmed), [FD30(S)SC].

2.2. Student Halls of Residences - fire doors [FD30(S)SC&VP] required:

- All bedrooms (including within cluster flats) [FD30(S)SC];
- All kitchens including within cluster flats [FD30(S)SC&VP];
- All studio flats [FD30(S)SC];
- All cleaner cupboards / storage rooms or cupboards [FD30(S)SC&VP];
- All service riser access doors and hatches [FD30(S)];
- Electrical switch cupboards (particularly on corridors and lobbies) [FD30(S)];
- Plant Rooms and Switch Rooms [FD30(S)SC];
- All information systems / server cupboards or rooms [FD30(S)SC];
- Office and ancillary accommodation (laundry rooms computer rooms study spaces etc.) depending on location [FD30(S)SC&VP].

2.3. Fire Resisting (FR):

Generally, indicates that the construction is designated as capable of resisting the passage of flame and smoke, and providing insulation as defined in under the prescribed conditions of test appropriate to such construction in accordance with the current British Standard 476.

- FD30 doors generally should not be less than 44mm in thickness;
• **FD60** doors generally should not be less than *54mm* in thickness;

2.4. **Vision Panels (VP)** - all doors on main traffic and circulation routes, corridors, lobbies or stair enclosures etc., shall be provided with Vision Panels for general safety (regardless of being fire doors or not - with fire resisting VPs embedded in fire doors);

• All doors to laboratories, kitchens and areas where hazardous items such as chemicals or glassware pass through the doors regularly are also provided with Vision Panels for general safety;

• **Inner Rooms** - doors to ‘Inner Rooms’ should be provided with Vision Panels;

• **Vision Panels (Exceptions)** - where there is need for privacy such as WCs / sleeping accommodation / rooms used for Patients / store rooms / dark rooms or light sensitive equipment rooms some specialist laboratory space etc.

• **Disability Access** - require vision panels (see approved Document Part M, The Building Regulations below);

2.5. **Smoke Seals (S)** - fire doors **MUST** be fitted with ‘intumescent and cold smoke seals / brushes’ where appropriate

• For UCL projects cold smoke seals fitted to all new & upgraded fire doors are the *brush type* wherever possible and **not rubber blade type**. Rubber blade type, appear from experience, not to be as durable and long lasting in maintenance terms, as the brushes.

2.6. **Self-Closing (SC) Devices** - generally standard overhead units are to be used meeting the latest edition BS 6459: Door Closers. Door closers and accessories should comply fully with the latest edition BS EN 1154:

(a). **Fire doors with ½ leaves** - shall be self-closing and fitted with either overhead unit where practical or using a Perko type fitting in smaller leaves, as necessary.

(b) **Perko fitting** are not normally acceptable on UCL doors with the exception of ½ leaves due to size restrictions.

(c). **Perkomatic / Powermatic** concealed door closers are acceptable for certain applications where an overhead SC unit is not practical due to local restrictions or for ½ leaves fitted to fire doors for self-closing.

• **Exceptions** on some smaller leaves it may be acceptable for practical reasons not to provided SC devices to be agreed with the UCL Fire Safety Manager.
2.7. **Air Transfer Grilles and Fire Doors**

Fire doors fitted air transfer grilles will not only allow air to pass through but smoke and fire also. It is, therefore, essential that whatever fire door a transfer grille is fitted, the fire and smoke resisting qualities of the door must not be reduced as a result:

(a). Where a fire door is fitted purely to resist the passage of fire and not to resist the combination of fire and smoke, a heat activated fire damper is usually acceptable. These are normally of the intumescent honeycomb or fusible strut type of operation.

(b). Where a fire door is fitted to protect an **internal escape route** and especially if the door has ‘Smoke Seals’ fitted, then the only air transfer grille permitted is one that resists the passage of smoke as well as fire:

- This type of damper is electro-magnetically released by the activation of a smoke detector located on the risk side(s) of the door [such as a ‘Gilbert’ typed damper – see UCL Fire Safety Technical Note **TN038**].
- Air transfer grilles in fire doors should not be fitted higher than 1000 mm from the floor threshold.

3.0. **Ironmongery**

3.1. **Ironmongery** - provide strong and fully functioning ironmongery that is approved for use with fire doors.

3.2. **'D' Handles** - in many cases the installation of a ‘D’ handle allows the tension to be released on locks to allow ease of opening, close external doors and against wind etc. Otherwise, pulling a door open on a thumb turn, key or a small knob is difficult and not acceptable on an escape route where the door needs to open inwards without a suitable handle;

3.3. **Locks** - locking devices fitted with Thumb Tums (known as Emergency Fastenings(EF)) should always be used on the inside leaf in direction of escape, unless other types of escape furniture is to be provided; or no locking furniture at all designated *Free From Fastenings* (FFF) for Means of Escape purposes.

3.4. **Final Exit (Gallagher) Security Locks** - UCL Security have a policy of fitting specialised locks on all perimeter exit doors fitted with Gallagher access control magnetic locks, in case of system failure. This allows UCL Security to lockdown a building without occupants with key only they hold, fitted with a Thumb Tum on the inside, which cannot be overridden unless the key has been tum to secure allowing escape when locked.
4.0. Fire Resisting Glazing

4.1. If a Vision Panel (VP) or glazing is required in a fire door or partition then the glazing has to be Fire Resisting Glazing of 30 or 60 minutes integrity (FRG 30/60) meeting BS 476: Part 22.

**Note 1:** Clear Fire Glazing - it is extremely important to be able identify clear glazing as fire glazing (Pyro) this is generally done by ensuring each glass sheet is provided with a visible 'Acid Etching' giving the trade name in the corner of the pane and marked with BS 476: Part 22.

**Note 2:** If the acid etched trade name or BS 476: Part 22 information is NOT visible then the UCL Fire Safety Manager will not accept the glazing as FRG - the glazing will be required to be replaced for correct specification and visible etching.

**Note 3:** Safety Glazing - glazing that is marked with BS 6206: 1981 / BS 6262 Series (or latest issue) is not fire resisting glazing. It is often mistaken for FRG 30 and the UCL Fire Safety Manager will require this glazing to be replaced for FRG where necessary.

4.2. Fanlights above fire doors are to be sealed so they cannot be opened and the construction to meet either FRG 30 or FR30, as required.

5.0. Security and Fire Rated (Croydon) Door Sets (Security door specifications need to be discussed with UCL Access Systems in the first instance).

5.1. UCL has standardised its requirements for those areas requiring security doors (SR2 - SR4) with a fire rating using a range of security doorsets fully certified to the Loss Prevention Certification Board’s LPS 1175 standard.

- **Stafford Bridge** Doors ([www.sbdoors.com](http://www.sbdoors.com)) Croydon Security Door sets for aesthetics and FD30 to FD60 range of specialist doors;

- **Ascot Doors** ([www.ascotdoors.co.uk](http://www.ascotdoors.co.uk)) manufacture specialist fire & security doors meeting 120 minutes with SR ratings (suitable for tunnels and other specialist requirements);

- **ASSA-ABLOY** - provide SR Security and Fire rated doors, which meet UCL locking and security requirements

5.2. **Stafford Bridge** Security Doors (Fire Alarm Interface) - fitted with the ‘Safe and Secure’ locking solution must have a local fire alarm interface used to cut the power to the fail-locked locking mechanism, along with the local break glass; this then leaves the door secure, but with a free exit handle for easy escape in the event of fire.
6.0. SMOKE & FIRE CURTAINS / SHUTTERS

6.1. From a practical solution, UCL as Client wishes project design teams to avoid fire & smoke curtains / fire shutters wherever possible, experience has shown that they are notoriously unreliable. Commentary - often architects and designers want to open up spaces for aesthetic reasons with fire curtains being a convenient solution. However, fire curtains leave a legacy of ongoing and costly maintenance. Additionally, they also present a significant management burden, should they fail to operate correctly. This failure to activate would significant impact on the means of escape and the general fire strategy of the premises, leaving a management burden on UCL the Client and the occupying departments that may affect core business functions.

6.2. Where there is no option but to install a fire curtain / fire shutter the in terms of specification then the emphasis MUST be on the quality in installation and ongoing maintenance. The following provides guidance:

- To meet LPCB approved smoke curtains (LPS1182) requirements and tests for fixed fabric smoke curtains, fixed metal smoke curtains and powered smoke curtains;

- Fire curtains must achieve both Insulation and Integrity ratings of 60 minutes as well as a smoke rating (therefore suitable guiderails will be required) and should be PAS121 compliant;

- Must deploy on activation of a signal from a smoke detector, not a temperature based fusible link;

- There should be warning mechanisms in place to indicate its operation:
  - to occupants when the curtain is descending (visually and audibly) with use of flashing beacons and alarm;
  - Floors / surfaces shall be marked / lineated to identify curtain or shutter operating / closure line and to ensure path not obstructed;
  - furniture and other obstruction will prevent the path of the fire curtain, therefore prevention measures that would block its descent may need installing (i.e. beams that detects any object under the fire curtain);

- The curtain needs to be fail-safe in the closed position;

- There should be a manual override button facilities to open curtain;

- Some manufacturers we are aware of are noted below:
  - www.ascotdoors.co.uk (Shutters & Curtains)
  - www.coopersfire.com
6.3. **Approved Installer and Contractors** - all existing fire curtains and fire shutter equipment is installed, service and maintained through the following contractor:

- **Fisk Fire Protection Ltd** ([www.fiskfire.co.uk](http://www.fiskfire.co.uk)) - have the contract and responsibility for the maintenance and servicing of this equipment and installation at UCL and it is essential to ensure that whatever is specified can be easily maintained;

7.0. **UCL Design Requirements / Criteria for Fire Doors:**

7.1. **All fire-resisting doors shall be:**

   (a). **Gaps** - close fitting to the frame with a maximum gap of 5mm, but **3mm** is the accepted working gap to meet BS 8214-2008;

   (b). **Hinges** - hung by a minimum of 1½ pairs of all metal hinges to meet BS 1935 / BS EN 1634;

   (c). Fitted with an effective self-closing device that is capable of closing the door tight against the stop, overcoming the resistance of any latch or lock provided to meet BS EN 1154;

   (d). **Generally** - all fire doors on circulation routes should open in the direction of escape and be rebated to ensure intumescent and smoke seals work correctly:

      (1). Doors should **NOT be double swing** on to stairs or within circulation areas.

      (2). Exception, doors forming a mid-corridor smoke break where these may be double swing.

7.2. **Disability Access** - door-opening devices to assist Mobility Impaired Persons (MIP) needs careful consideration and details for providing automated opening doors is detailed in:

- UCL Fire Safety Technical Note **TN001**;
8.0. General View of a Fire Door and Associated Furniture

Figure 61: A fire resisting and smoke stopping door

- Ideally the frame should be to the same standard as the door, purchased together as a door set
- Door closer, see BS EN 1154 for further information
- Hinges – see BS 1935. Hinges should be tested as part of the door set to BS EN 1634-2
- Vision panel should be fire-resisting glazing
- Door handles and locks – see BS EN 1906 Annex C and BS EN 12209 Annex A respectively for further information
- Door handles and locks should be tested as part of a door set – see BS EN 1634-1 for further information
- Intumescent strip and cold smoke seal to resist the passage of smoke and fire

Securing device – lock, emergency exit device or panic exit device. See BS EN 12209, BS EN 179 or BS EN 1125 respectively for further information.
9.0. Approved Document M - The Building Regulations

9.1. General guidance on Vision Panel dimensions, however if Vision Panels form part of a fire resisting door set then the area of the glass may be determined by the fire resistance properties and the manufacturers’ specifications etc.

9.2. All door glazing on traffic routes and public areas should be Safety Glazing Standard, in addition to any fire resistance required.
Quick Reference Guide

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<th>Door Finish</th>
<th>Lock Fitting</th>
<th>Vision Panels</th>
<th>Safety</th>
<th>Security</th>
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<tbody>
<tr>
<td></td>
<td>Single</td>
<td>Double</td>
<td>Timber</td>
<td>Steel Faced</td>
<td>Concealed</td>
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- FD30, FD60, & FD90: 30-, 60- & 90-minute fire resistant options on single, double, inward & outward opening doors
- BS EN 1125: Latest European Panic Exit standard
- BS EN 179: Latest European Emergency Exit standard
- BS EN 1522: FB1 to FB7; hand gun and rifle round (in order of magnitude). FSG; solid slug shot gun ammunition
- LPCB: Loss Prevention Certification Board
- LPS 1175: Loss Prevention Standard for Forced Entry

N.B. Our doorsets are regularly tested and assessed - refer to current certificates 516a for full list of product conformity

- ACPO: Association of Chief Police Officers
- Blast: Ensures blast protection to the requirements of HM Government explosion test standard for protected spaces
- Approved manufacturer of HM Government ‘Croydon’ Security Doorset
- Currently under test
- Aimed at LPS 1175 but as yet untested

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Assessed to ISO 9001:2000
Certificate No. 516-2

A member of
www.surelockmcgillgroup.com
Steel Hinged Doors

Personnel access
Fire resistant
Fire exit
Acoustic
Insulated
Welcome to Ascot Doors Limited, manufacturer and installer of individually made-to-measure high performance steel hinged doors.

**Made to measure**
Ascot offer the complete service from design, manufacture and installation to on-going service and repair.

Unrivalled aesthetics and performance have become the hallmark of Ascot Doors in all applications from personnel access, fire and high security, to energy efficiency and sound reduction, internally and externally.

Based in Bolton, UK, Ascot manufactures purpose-made doors in its own factories using the latest computer controlled production equipment.

Together with modern welding techniques and powder coating technology the highest quality standards are applied, not only in products, but in peoples daily work processes.

Installation teams undergo rigorous training to ensure that your doors are installed to the highest standards and in all cases, in the most effective and safest manner possible.

Recognised internationally for high levels of quality and safety, Ascot make doors for UK, Irish and overseas customers.

*Doors, materials and construction  1 - 2*
*Frame profile and fixings  3*
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*stadia*
*public buildings*
*retail parks & utilities*
*factories & warehouses*
*hospitals & surgeries*
*banks & offices*
*leisure & sports halls*
*schools & colleges*
*water treatment works*
Steel Hinged Doors

Ascot fire and non-fire rated steel hinged doors for internal and external applications combine strength with elegance and durability with cost effectiveness.

Proven in a wide variety of buildings where safety, security and aesthetics can't be met by traditional timber doors. Ascot steel doors are hard wearing and designed to cope with high traffic levels. Doors can be fitted with door furniture to meet the most demanding specifications. Where a greater level of security is required, the Ascot range includes LPS1175 Security Rated level 1, 2, 3, 4 & 5 (please see security brochure for full details). A resilient polyester powder coat base zinc rich primer onto a zinc coated steel substrate reduces maintenance and improves the life of the finished coat. A factory applied polyester top coat or paint to most BS or RAL colours is available as an option.

Door widths
Maximum seamless single door 1,400 mm structural opening width, maximum seamless double door 2,770 mm structural opening width. Wider seamed doors available to any width*.

Door heights and overpanels
Increase overall height with overpanels, they can be hinged, fixed or removable.

Non-fire resistant
Innovative design, in-built adaptability with co-ordinated hardware have led to a generation of doors which are pleasant to look at, fit for purpose and give years of enduring service. Individually made to specification to fit any door opening, Ascot steel hinged doors don't shrink, warp or twist, they are immune to insect attack and will not support bacteria, mould or fungi.

- **non fire range**
  - A500 fire exit & personnel hinged door light to heavy duty

Fire rated - 240 minutes
Flush faced, attractive, available as single or double doorsets with a four hour fire rating. Ascot fire rated steel hinged doors provide a robust, durable door, available with a wide range of options and finishes and an extensive variety of ironmongery for escape and security functions as well as fire for all commercial & industrial buildings.

- **fire range** rated up to 240 minutes
  - A240 fire rated hinged door

Environmental and Acoustic Doorsets
For increased heat insulation and lower energy loss, environmental doorsets provide good sound reducing properties to abate normal operating noise levels in and around commercial, industrial and public buildings for the privacy and comfort of its occupants.

- **environmental**
  - A600 insulated and acoustic doorsets
  - A630 fire rated insulated and acoustic doorsets

*call the technical team on 01204 545 801 for more information
Steel hinged doors technical specifications

**A240 Series Fire doors - 240 minutes**
Tested by EXOVA, Warrington to BS EN 1634/1 for up to four hour fire resistance in the latched or unlatched condition on single, double and leaf-and-a-half doors. These doors can be with or without solid overpanel.

Ascot fire doors are made for high traffic volumes and can be fitted with a variety of door furniture. Smoke seals are fitted to the head, jambs and thresholds to ensure a high level of smoke resistance. Ascot also supply unlatched double doors without an astragal.

**Door and frame construction**
Our unique and carefully constructed door, is finished to provide a 46 mm thick leaf with integral astragal. Skin thickness at the vulnerable edge are the thickest available in the market and come as standard at Ascot.

Doors are assembled from a double tray to provide an edge thickness of between 3.0 mm and 4.8 mm for maximum strength. Each door leaf is supported on a minimum of three 102 x 76 high load ball race hinges to BS EN1935 Class 13 or Class 14.

Standard door and frame skins are made from Zintec BS sheet. Where high corrosion resistance is a prerequisite, Aluzinc to BS EN 10327 (AZ:150G) or galvanised steel sheet is used with a wide choice of hardware and core infills.

**Infills**
A choice of core infills are bonded into the door, whether it’s honeycomb for strength and fire protection, mineral wool for insulation and sound proofing or urethane block for reduced heat loss, the technical team can advise on the best infill for the application.

- **honeycomb:** (standard infill)
- **mineral wool:** (reduces heat loss & noise levels)
- **urethane block:** (increased thermal properties)
Frame profile

A 1.5 mm thick, single or double rebate folded steel section is fitted with butt joints at the head. Each frame is provided with fixing plates welded into the back of the frame for installation into conventional openings by fixing bolts, packing and shims. Frame faces are 40 mm wide as standard, other frame face widths from 20 to 60 mm are available.

<table>
<thead>
<tr>
<th>Frame reference</th>
<th>A frame face width mm</th>
<th>B frame face width mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR1</td>
<td>20-60</td>
<td>127</td>
</tr>
<tr>
<td>SR2</td>
<td>20-60</td>
<td>100</td>
</tr>
<tr>
<td>SR3</td>
<td>20-60</td>
<td>85</td>
</tr>
<tr>
<td>DR1/DR1A</td>
<td>20-60</td>
<td>143</td>
</tr>
<tr>
<td>DR2</td>
<td>20-60</td>
<td>143</td>
</tr>
<tr>
<td>DR3</td>
<td>20-60</td>
<td>185</td>
</tr>
<tr>
<td>DR4</td>
<td>20-60</td>
<td>225</td>
</tr>
<tr>
<td>DR5</td>
<td>20-60</td>
<td>250</td>
</tr>
<tr>
<td>DR6</td>
<td>20-60</td>
<td>275</td>
</tr>
<tr>
<td>DR7</td>
<td>20-60</td>
<td>300</td>
</tr>
</tbody>
</table>

*more sizes available, ask the technical team

Fixing arrangements

Installing frames to most type of wall or opening, construction is possible using a combination of fixings and frame design. To maximise security and longevity of the installation, frames should be fully supported by a strong structure. Standard 100 mm brickwork 140 mm blockwork, or other wall thicknesses can be accommodated. Brick and blockwork should ideally be solid and dense. Steel structure thickness should be a minimum of 4 mm.
Astragals and handing

Security features
As standard and only at Ascot Doors, double doorsets have a unique integral meeting style, giving added protection and, in conjunction with seals, a reduction in heat loss. Single doors have a full height integral astragal whose design gives added strength in comparison with astragals that are added by welding or riveting.

Also available are stainless steel dog-bolt hinges, increased skin thicknesses and anti-jemmy channels as options to the standard door.

LPS1175 Security Rated
Where security has to be given the upmost priority. Ascot high security steel doors are approved by the Loss Prevention Certification Board to LPS 1175 security rating levels SR1 to SR5 and Secured by Design. Please see High Security Publication on our web site for more details.

Handing
A simple rule to determine the handing of a doorset - stand in front of the closed door on the side where you can see the hinge knuckles. If they are to the right, it is a right hand door - if they are to the left, it is a left hand door. All door handing styles are available in single and double doorsets.

Secured by Design is a crime prevention initiative managed by ACPO CPI Limited on behalf of the UK Associated of Chief Police Officers (ACPO)
Access

Fire exit and Disabled access

Effective clear widths take into account the projection of hardware ironmongary from the face of the door. Only hardware that is within the zone affecting a wheelchair user need be considered. Minimum dimensions complying with BS 8300 and Advisory Document M for disabled access.

Disabled access

<table>
<thead>
<tr>
<th>minimum effective clear widths of doors</th>
<th>new buildings structural opening required</th>
<th>existing buildings structural opening required</th>
</tr>
</thead>
<tbody>
<tr>
<td>All dimensions in mm</td>
<td>dim A min</td>
<td>width diag 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>width diag 2</td>
</tr>
<tr>
<td>straight-on (without a turn or oblique approach)</td>
<td>800</td>
<td>965</td>
</tr>
<tr>
<td></td>
<td></td>
<td>750</td>
</tr>
<tr>
<td>at right angles to an access route at least 1,500 mm wide</td>
<td>800</td>
<td>965</td>
</tr>
<tr>
<td></td>
<td></td>
<td>750</td>
</tr>
<tr>
<td>at right angles to an access route at least 1,200 mm wide</td>
<td>825</td>
<td>990</td>
</tr>
<tr>
<td></td>
<td></td>
<td>775</td>
</tr>
<tr>
<td>external doors to buildings used by general public</td>
<td>1000</td>
<td>1165</td>
</tr>
<tr>
<td></td>
<td></td>
<td>775</td>
</tr>
</tbody>
</table>

source DHF guide to approved document M

Fire exit openings

Dimensions comply with Advisory Document B for fire exits.

<table>
<thead>
<tr>
<th>minimum effective clear widths of doors</th>
<th>Advisory Document B</th>
<th>clear width required</th>
<th>structural opening size required</th>
</tr>
</thead>
<tbody>
<tr>
<td>All dimensions in mm</td>
<td>dim A min</td>
<td>width diag 3</td>
<td></td>
</tr>
<tr>
<td>no of persons to exit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>60</td>
<td>750</td>
<td>1015</td>
</tr>
<tr>
<td></td>
<td>110</td>
<td>850</td>
<td>1115</td>
</tr>
<tr>
<td></td>
<td>220</td>
<td>1050</td>
<td>1315</td>
</tr>
<tr>
<td></td>
<td>&gt;220</td>
<td>1050+5</td>
<td>+265 to clear width required</td>
</tr>
</tbody>
</table>

source DHF guide to approved document B

300 mm minimum unless door is power operated

minimum effective clear widths of doors Advisory Document M and B
Door configurations

Profiles
Doorset profiles are made to suit any configuration, a varied combination of louvers and vision panels are available to suit the individual applications, here are a few common examples:

Vision panels
Standard or bespoke door-set shapes are sized to specification. Ascot can supply a wide range and variety of vision shapes. A maximum glazed area applies to fire rated door-sets but is generous enough to meet most needs. Our standard non-fire rated glass is 6.4 mm thick clear laminate. The double glazed units are made from a 6 mm toughened outer plane and 6.4 mm clear laminated inner. Other glass types and reflective films are available. Ascot’s fire rated glass is 9 mm thick clear laminated Firelite (TM).

Louvred panels
Steel or aluminium louvres can be fitted in many standard and specially made sizes. Bird and insect mesh are available as options. Louvres are supplied in mill finish (aluminium) or primer (steel) or powder coated to match the leaves. All louvres except the smallest give 50% free air. Louvre panels can be fire rated to 60 minutes.

Over & side panels
Any combination of side panels and over panels to suit applications and openings are available.

Hinged over panels
For large over panels that can be difficult to remove, Ascot has designed hinged over panels that can be opened with the personnel doors below or left closed.
Ironmongery*

- lock cases  BS EN 12209
- cylinders  BS EN 1303
- panic hardware  BS EN 1125 & BS EN179
- closers  BS EN 1154
- door co-ordinators  BS EN 1158
- levers  BS EN 1906
- pull handles  satin stainless steel
- Advisory Document (AD) M compliant ironmongery

Door hardware

A full range of hardware, disabled compliant, in stainless steel or aluminium is available. Alternatively, Ascot can prepare your door to accept client free issue or specified hardware.

All standard lock cases, pull and lever handles, push plates, and escutcheons are made from stainless steel and meet BS EN8300 and are AD M compliant. Standard ironmongery is positioned on the door leaf in accordance with AD B for fire exits and AD M for disabled.

For advice on Advisory Documents B, M and L2, please call the technical team.

Controlled access doors can be fitted with mechanical & digital locks or electrically operated hardware such as magnetic locks, electrical strikes, solenoid locks or bolts controlled by either electronic keypad, card swipe, card reader or fob. We recommend door closers where these features are specified.

Signs

Rigid plastic, aluminium or stainless steel signage is fitted as required by the application.

*choose at time of specification, call the technical team on 01204 545 801 for more information
Threshold options

A wide range of low level thresholds for internal and external use that satisfy the requirements of AD M for wheelchairs are available. Thresholds are offered in mill finished aluminium as standard, other finishes are available.

A low level threshold is ideally suited for external applications and incorporates a rubber seal for improved weather sealing, thermal insulation, acoustic and smoke sealing performances. By fitting drop seals or door shoes, extra smoke sealing or acoustic performance requirements can be met.

Sealing

For improved weather and thermal insulation Ascot fit as standard EPDM cellular rubber seals and on fire rated or acoustic door sets self-extinguishing silicone fire seals are employed.

Door and frame finishes

The extensive range of Ascot steel doors and frames are coated in polyester powder coat primer to RAL 7004 (grey) ready for on-site painting or can be factory finished with polyester powder in any available BS or RAL reference. For doors in high salinity or high pollution areas, such as within 5 km of the coast, abattoirs, swimming pools, water treatment works or heavy industrial areas, we recommend a marine grade finish is applied. In addition, the substrate of the doors can be changed to Aluzinc to BS EN 10327 (AZ150G) to give vastly improved door life.
Ascot Service and Repair

Fast and reliable for peace of mind. To ensure your doors are maintained in good working order, our UK-wide network of Service Centres are strategically placed to provide the fastest possible response time. If you have a breakdown our stocked service vans can be at your site fixing your door, FAST!

Service

Our nationwide service centre network attend scheduled maintenance visits and on-site repairs. Emergency repairs are often attended within 4 hours. With over 25 years experience manufacturing, installing and repairing doors and 11 service centres, Ascot is the ideal partner you can rely on to maintain your industrial, commercial and retail doors.

Repairs

Damaged doors cause downtime to operations, whether it’s people traffic or moving goods in and out of buildings. Business today is moving faster, damage and malfunctions must be repaired quickly and professionally by trained technicians, whether it’s one of our doors or another make, Ascot Service and Repair can fix it.

Maintenance agreements

A maintenance agreement offers regular service levels to make sure the frequency of door usage is maintained and to diagnose problems before failure and disturbance to traffic flows occurs. Planned regular maintenance increases functionality and reduces expensive downtime.

Upgrades and replacements

In time, your door requirements will change. Improvements in operations and technology will place greater demands on movements in and out of buildings. Whether it’s moving or resizing doors, changing or adding safety and security features the Ascot Service and Repair team can handle it.

Conversions

Converting existing roller shutters, sliding doors, folding doors and sectional overhead doors to electric operation, fully or semi-automatic systems to speed up operations can be incorporated where required. Moving or modifying doors quickly to minimum disruptions are all part of our service.

contact service:
0870 555 6644
service@ascotdoors.co.uk

maintenance replacements all types of doors

The Ascot Range

Ascot offer a broad selection of doors to suit any commercial, retail or industrial building. We are happy to take you through any application requirement and the regulatory standard required for each door.

steel hinged doors service and repair fast acting doors PVC strip curtain roller shutters folding doors dock levellers sectional doors high security doors fire shutters and doors LPS1175 hinge & shutter doors

Due to a policy of progressive design we reserve the right to alter specification without prior notice.
service centres

North East
Unit 1C, Dean & Chapter Industrial Estate
Ferryhill, COUNTY DURHAM DL17 8LN
Tel: 01740 657 171
Fax: 01740 657 931

North West
Britannia Way industrial Park
Union Road, BOLTON BL2 2HE
Tel: 01204 547 798
Fax: 01204 547 797

Yorkshire
Unit 2, Wortley Court, Fallbank Industrial Estate
Dodworth, BARNSLEY S75 3JS
Tel: 01226 246 667
Fax: 01226 248 436

West Midlands
Unit 18, Block D, Wednesbury Trad. Est.
Wednesbury, BIRMINGHAM WS10 7JN
Tel: 01215 025 934
Fax: 01215 025 931

South Central
Unit 2, Lennox Industrial Mall, Lennox Road
BASINGSTOKE RG22 4DF
Tel: 01256 322 566
Fax: 01256 353 002

East Midlands
Unit 7, Oaks industrial Estate,
Coalville, LEICESTER LE67 3NQ
Tel: 01530 817 682
Fax: 01530 817 680

South West
Unit 21, Blake Mill Business Park,
Brue Avenue, BRIDGWATER TA6 5JF
Tel: 01278 439 313
Fax: 01278 439 200

East Anglia
Unit G3, Seedbed Centre, Wyncolls Road
COLCHESTER CO4 9HT
Tel: 01206 843 413
Fax: 01206 843 319

South East
Unit 36, Thomas Way, Lakesview Business Park
Hersdon, Nr. CANTERBURY CT3 4JZ
Tel: 01227 711 757
Fax: 01227 713 786

Scotland
Unit 59, Evans Business Centre, Bellshill Ind Est
Bellshill, LANARKSHIRE ML4 3NP
Tel: 01698 574 540
Fax: 01698 748 625

London
Unit L, The Business Centre, Faringdon Avenue
Harold Hill, ROMFORD RM3 8EN
Tel: 01708 386 900
Fax: 01708 386 886

24/7 service & national accounts
0870 555 6644

head office
Ascot Doors Limited
Britannia Way Industrial Park
Union Road, Bolton BL2 2HE
Tel: 01204 545 801
Fax: 01204 545 800

www.ascotdoors.co.uk
High Security Doors and Shutters

Steel Hinged Doors
LPS1175 Security Rating 1, 2, 3, 4 & 5
Secured by Design
EN1627 TO EN1630 RC3

Roller Shutters
LPS1175 Security Rating 1, 2, 3 & 4
Secured by Design
Welcome to Ascot Doors Limited, manufacturer and installer of individually made-to-measure high performance steel hinged and roller shutter doors.

Made to measure
Ascot offer the complete service from design, manufacture and installation to on-going service and repair.

Unrivalled aesthetics and performance have become the hallmark of Ascot Doors in all applications from personnel access, fire and high security, to energy efficiency and sound reduction, internally and externally.

Based in Bolton, UK, Ascot makes purpose-made doors in it’s own factories using the latest computer controlled production equipment. Together with modern welding techniques and in-house powder coating technology the highest quality standards are applied, not only in products, but in peoples daily work processes.

Installation teams undergo rigorous training to ensure that your doors are made and fitted in accordance with LPS1175 where appropriate, and in all cases, in the most effective and safest manner possible.

Recognised internationally for high levels of quality and safety, Ascot make doors for UK, Irish and overseas customers.

armouries & gun clubs
factories & warehouses
education establishments
banks & building societies
pharmaceutical & research
local authorities & hospitals
public buildings & museums
telecommunications & utilities
defence buildings & police stations

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Selection guide & finishes 6
Roller shutter doors 7
Shutter specifications 8
Shutter operation 9 - 11
Shutter options 12
Service and Repair 13
High security performance doors

Where security is priority. Ascot’s doors are approved by the Loss Prevention Certification Board to LPS1175, EN1627 to EN1630 and Secure by Design and combine strength with elegance and durability with cost effectiveness.

In buildings, where safety and security can’t be met by standard doors, Ascot high security steel doorsets are designed to resist attempts at forced entry. Doorsets are individually made to specification to fit any door opening and are constructed to Security Ratings 1-5 to resist a series of attacks from one minute to 10 minutes duration by attack by one person using powered tools. Ascot steel hinged doors don’t shrink, warp or twist, they are immune to insect attack and will not support bacteria, mould or fungi. Ascot steel doors are hard wearing and designed to cope with high traffic levels for internal and external use. All grades of security door can be supplied fire rated for up to 240 minutes to BS EN 1634.

LPS1175 Security Rating 5 - tool category D+
SR5 rated doors are tested to withstand a determined attempt at forced entry using 18 volt cordless tools, powered disc cutters, a reciprocating saw as well as tools in categories A to D.

LPS1175 Security Rating 4 - tool category D
Under this rating doors are tested to withstand an experienced attempt at forced entry using tools which include 12 volt cordless powered hand tools, disc grinders, circular saws, power drills, jigsaw, a sledge hammer, a felling axe, hole saws, plate cutters, steel wedges and hooligan bar.

LPS1175 Security Rating 3 - tool category C
Under this rating doors are tested to withstand a deliberated attempt at forced entry using bodily physical force and a wide selection of tools including axe, cold chisels, brick bolster, crow bar, lump hammer and cordless drill.

LPS1175 Security Rating 2 - tool category B
Hinged doors and shutters certified to these security standards have resisted a series of professional attacks, each lasting up to 2 minutes using a variety of hand-tools such as hammers, levers, screwdriver, steel tube and shears.

LPS1175 Security Rating 1 - tool category A
Hinged doors and shutters certified to these security standards have resisted a series of professional attacks, each lasting up to 1 minute using a variety of hand-tools such as levers, screwdrivers, spanners and punches.

<table>
<thead>
<tr>
<th>Security Rating</th>
<th>level of risk</th>
<th>security ref no.</th>
<th>hinged doors</th>
<th>roller shutters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced</td>
<td>SR5</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very high</td>
<td>SR4</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>High</td>
<td>SR3</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>SR2</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>SR1</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>
High security Steel Hinged Door specifications

Security specification
Ascot Doors employ a leaf and frame design and reinforcing techniques to provide high levels of security. Doors are fitted with door furniture to meet the most demanding specifications. A resilient polyester powder coat base primer reduces maintenance and improves the life of the finished coat; a factory applied polyester top coat or paint to most BS or RAL colours are available as options. Features include a unique double leaf anti-penetration full height astragal, single doors have a market ‘first’ leading edge design to prevent jemmying.

Door and frame construction
Centurion high security doors are available as single or double doors for internal and external use. Doors and frames are usually constructed from Zintec steel to BS EN 10152 which provides excellent corrosion resistance and improved paint adhesion than galvanised steel. Panels are reinforced with anti-jemmy channels. For increased corrosion resistance doorsets aluzinc or galvanised steel is used.

Door and frame construction SR4 & SR5
Panels are reinforced horizontally and vertically with 3.0 mm Zintec steel channels. Standard honeycomb infill is expanded and bonded within the door under pressure. The folded twin tray construction is welded resulting in a leaf thickness of 50 mm. Each door leaf is supported on continuous stainless steel high load hinges with integral security dog-bolts. Frames are made from 2 mm Zintec steel press braked to give standard or special profiles.

Door and frame construction SR3
Panels are reinforced horizontally and vertically with 3.0 mm Zintec steel channels. Standard honeycomb infill is expanded and bonded within the door under pressure. The folded twin tray construction is welded resulting in a leaf thickness of 50 mm. Each door leaf is supported on continuous stainless steel high load hinges with integral security dog-bolts. Frames are made from 2 mm Zintec steel press braked to give standard or special profiles. Jointed & welded corners as standard.

Door and frame construction SR1 & SR2
Appropriate reinforcements for the specified ironmongery are assembled within the leaf. The twin tray construction, complete with paper honeycomb infill, is bonded under pressure and welded to form a 45 mm thick panel. Each door leaf is supported on stainless steel dog bolt hinges to EN1935 Grade 14. Frames are made from 1.6 mm Zintec steel press braked to form standard or special profiles, but jointed and bolted as standard.

Fixing arrangements - installation configurations SR1 to SR5

<table>
<thead>
<tr>
<th>Rating</th>
<th>door ref no.</th>
<th>LPCB ref no</th>
<th>timber brickwork blockwork</th>
<th>timber (hardwood) brick/blockwork steelwork</th>
<th>brickwork blockwork Steelwork</th>
<th>reinforced brick/ blockwork, steelwork reinforced concrete</th>
<th>reinforced concrete steelwork</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR5</td>
<td>A3655</td>
<td>131d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A365D</td>
<td>131d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>SR4</td>
<td>A3555</td>
<td>131d</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A3645</td>
<td>131d</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>A364D</td>
<td>131d</td>
<td></td>
<td></td>
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<td>A3635</td>
<td>131d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A363D</td>
<td>131d</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>SR2</td>
<td>A3625</td>
<td>131d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A362D</td>
<td>131d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR1</td>
<td>A361S</td>
<td>131d</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A361D</td>
<td>131d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Steel Hinged Door sizes

Openings
Ascot high security hinged doors are certified according to the sizes in the tables below, single leaf doors are 700 x 1800 minimum and 1350 x 2900 maximum. Double leaf doors are 1400 x 1800 minimum and 2610 x 2900 maximum. The requirement for taller doorsets can be accommodated with hinged overpanels and removable transoms.

### LPS1175 SR3, SR4, SR5

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Doorset Configuration</th>
<th>Min Height</th>
<th>Min Width</th>
<th>Max Height</th>
<th>Max Width</th>
<th>Security Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centurion A365S</td>
<td>Single leaf, outward opening</td>
<td>1800</td>
<td>700</td>
<td>2900</td>
<td>1350</td>
<td>5</td>
</tr>
<tr>
<td>Centurion A365D</td>
<td>Single leaf, outward opening</td>
<td>1800</td>
<td>1400</td>
<td>2900</td>
<td>1350</td>
<td>5</td>
</tr>
<tr>
<td>Centurion A355S</td>
<td>Single leaf, outward opening</td>
<td>1800</td>
<td>700</td>
<td>2500</td>
<td>1350</td>
<td>4</td>
</tr>
<tr>
<td>Centurion A364S</td>
<td>Single leaf, outward opening</td>
<td>1800</td>
<td>700</td>
<td>2900</td>
<td>1350</td>
<td>4</td>
</tr>
<tr>
<td>Centurion A364D</td>
<td>Double leaf, outward opening</td>
<td>1800</td>
<td>1400</td>
<td>2900</td>
<td>2610</td>
<td>4</td>
</tr>
<tr>
<td>Centurion A363S</td>
<td>Single leaf, outward opening</td>
<td>1800</td>
<td>700</td>
<td>2900</td>
<td>1350</td>
<td>3</td>
</tr>
<tr>
<td>Centurion A363D</td>
<td>Double leaf, outward opening</td>
<td>1800</td>
<td>1400</td>
<td>2900</td>
<td>2610</td>
<td>3</td>
</tr>
</tbody>
</table>

### LPS1175 SR1, SR2

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Doorset Configuration</th>
<th>Min Height</th>
<th>Min Width</th>
<th>Max Height</th>
<th>Max Width</th>
<th>Security Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centurion A362S</td>
<td>Single leaf, outward opening, single point locking</td>
<td>1800</td>
<td>700</td>
<td>2500</td>
<td>1350</td>
<td>2</td>
</tr>
<tr>
<td>Centurion A362D</td>
<td>Double leaf, outward opening, single point locking to active leaf</td>
<td>1800</td>
<td>1400</td>
<td>2500</td>
<td>2610</td>
<td>2</td>
</tr>
<tr>
<td>Centurion A362S</td>
<td>Single leaf, outward opening, three point locking</td>
<td>1800</td>
<td>700</td>
<td>2900</td>
<td>1350</td>
<td>2</td>
</tr>
<tr>
<td>Centurion A362D</td>
<td>Double leaf, outward opening, three point locking to active leaf</td>
<td>1800</td>
<td>1400</td>
<td>2900</td>
<td>2610</td>
<td>2</td>
</tr>
<tr>
<td>Centurion A361S</td>
<td>Single leaf, outward opening, single point locking</td>
<td>1800</td>
<td>700</td>
<td>2500</td>
<td>1350</td>
<td>1</td>
</tr>
<tr>
<td>Centurion A361D</td>
<td>Double leaf, outward opening, single point locking to active leaf</td>
<td>1800</td>
<td>1400</td>
<td>2500</td>
<td>2610</td>
<td>1</td>
</tr>
<tr>
<td>Centurion A361S</td>
<td>Single leaf, outward opening, three point locking</td>
<td>1800</td>
<td>700</td>
<td>2900</td>
<td>1350</td>
<td>1</td>
</tr>
<tr>
<td>Centurion A361D</td>
<td>Double leaf, outward opening, three point locking to active leaf</td>
<td>1800</td>
<td>1400</td>
<td>2900</td>
<td>2610</td>
<td>1</td>
</tr>
</tbody>
</table>

Max height for single point locking 2,500 mm
Hinged Door Selection

selection guide

1. number of bolts
   - 3-point bolting secure a single door or the active leaf of a double door set at the top, bottom and centre.
   - 2-point bolting secure the passive (first to close) leaf of a double door set at the top and bottom only.
   - Single point Abryll single leaves or active leaf on double doors

2. entry method
   - deadlocking with access control 12v solenoid, energise to unlock (fail secure) and handle entry.
   - no entry exit door only.
   - deadlocking with key and handle entry

3. exit method
   - deadlocking with access control handle, pad or bar release on the inside
   - no exit entry door only
   - deadlocking with key handle, pad or bar release on the inside
   - deadlocking with turnknob handle release on inside
   - bolting with panic bar release on inside
   - bolting with emergency breakdome release on the inside

Ironmongery

Security
A range of high security surface mounted panic and escape hardware by Mico-Tindall is factory fitted. Mortice lock are available for SR1 and SR2 complete with cylinder guards to protect external cylinders.

The units can be operated by pad, lever or bar and be supplied as single action escape units or have the ability to be internally locked by key or thumbturn. Access externally is by cylinder, in a high security housing and lever.

Ascot offer double fire escape doors with ironmongary to EN1125 and LPS 1175 SR4.

SIP504 Double panic bolt to EN1125

3 point panic locking system

Abryll MD3 with heavy duty cranked lever
Locking options

Locks and access control
A choice of certified locking cylinders from Assa, Abloy, Kaba, Locken, Union, AMS, Medeco and others in various shapes e.g. Euro profile, Scandinavian Oval, Rim and Round threaded. Doors are fitted with Assa Scandinavian cylinders as standard.

Additional locking and access control methods are available. For controlled access, doors can be fitted with electrically operated hardware controlled by either keypad, card swipe, card reader or fob.

Access control options
- lock cylinder
- RFID swipe card
- magnetic card reader
- RFID fob
- thumb print recognition
- electronic keypad
- solenoid locks
- timed limited locks

more styles available, please ask the technical team

External access

External access

External Scandinavian oval cylinder
Internal Scandinavian oval cylinder
Euro single cylinder
ABLOY round cylinder
ASSA round cylinder

USCH5 lock cylinder housing (Up to SR5)

ELK lock with lever

For a full list please refer to www.ascotdoors.co.uk
Ironmongery

22 mm safety lever

Heavy duty door closer
(with hold open if required)

Stainless Steel Mico tower bolt

Heavy duty stay

Visions
We offer security rated visions approved to LPS1175 which can also be fire rated for up to 60 minutes. Our range is continually expanding, so please contact the technical team for up to date information.

Fan light SR2
Glazed fanlights can be supplied to LPS1175 SR2 level with glazing complying with LPS1270

Louvres
Steel louvres can also be installed in Ascot LPS1175 doorsets. Please contact the technical team for details.

Hardware options

Handing
A simple rule to determine the handing of a doorset; - stand in front of the closed door or the side where you can see the hinge knuckles. If they are to the right, it is a right hand door - if they are to the left, it is a left hand door. High security door handing styles are available in single and double door sets and open outwards.

Door and frame finishes
The extensive range of Ascot steel doors and frames are coated in polyester powder coat primer to RAL 7004 (grey) ready for on-site painting or can be factory finished with polyester powder in any available BS or RAL reference.

For doors in high salinity or high pollution areas, such as within 5 km of the coast, abattoirs, swimming pools, water treatment works or heavy industrial areas, we recommend a marine grade finish is applied. In addition, the substrate of the doors can be changed to Aluzinc to BS EN 10327 (AZ150G) to give vastly improved door life.
High Security Roller Shutters

Where higher levels of security is a main concern, the LPS1175 approved Centurion Shutter resists attempts at forced entry from SR1 right up to SR4 to combat the most determined perpetrator.

Construction
Highly versatile and cost effective. Ascot Centurion High Security Shutters are individually designed and manufactured to suit the specific opening using stylish laths, which are much more attractive than conventional sections. A wide variety of curtains and guide sections are available which are dependant on the level of security rating required.

Curtains
Shutter curtains are constructed from either traditional steel laths, extruded aluminium lath, aluminium insulated lath or galvanised insulated lath dependant on the security rating required. All curtains are securely held using an end lock to suit the curtain configuration which prevents lateral movement. Traditional steel lath is available in perforated finish (SR1 only). The aluminium lath is available in punch and/or punched and glazed (SR1 only). All Ascot shutter curtains are finished off with either a heavy duty roll formed ‘T’ section (SR1 & SR2 only) or mill finished extruded aluminium bottom rail.

Guides
Vertical guides are formed from rolled steel or extruded aluminium dependent on size, wind loading and security rating and are supplied with suitable angles for fixing to the structure.

Endplates
Mild steel endplates of appropriate thickness relative to door size are supplied with angles for fixing to the structure. Either 5 mm thick (min) for tube motor operation or 8 mm (min) thick primmed steel laser cut endplates for direct drive operation are provided to accept the barrel and curtain assembly. They are complete with either galvanised steel tube motor brackets and safety brake or high quality two bolt flange bearings.

Barrel
The barrel assembly is constructed from seamless steel tube of adequate diameter to resist deflection and is supported in bearings or cups attached to mild steel endplates.
Construction & Shutter sizes

The Ascot Centurion shutter is constructed to meet the demands of the Loss Prevention Certification Board. The following table illustrates the construction configuration in conformance to the specified Security Rating for the opening.

### Construction

LPS1175 roller shutter door sets

<table>
<thead>
<tr>
<th>product name</th>
<th>configuration</th>
<th>guide type</th>
<th>curtain construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centurion SR4</td>
<td>face fixed</td>
<td>steel reinforced</td>
<td>double skin laths with reinforced bars</td>
</tr>
<tr>
<td>Centurion SR3</td>
<td>reveal &amp; face fixed internally</td>
<td>aluminium</td>
<td>double skin aluminium laths with reinforced bars</td>
</tr>
<tr>
<td>Centurion SR2</td>
<td>reveal &amp; face fixed internally</td>
<td>steel</td>
<td>18 gauge steel laths</td>
</tr>
<tr>
<td>Centurion SR1</td>
<td>face fix internally</td>
<td>steel</td>
<td>double skin insulated lath</td>
</tr>
<tr>
<td></td>
<td>reveal &amp; face fixed internally</td>
<td>steel</td>
<td>solid 20 gauge steel laths perforated 20 gauge steel laths solid single skin aluminium laths punched aluminium laths punched and glazed aluminium laths</td>
</tr>
</tbody>
</table>

### Fixing arrangements

Installation configurations

<table>
<thead>
<tr>
<th>door</th>
<th>product ref</th>
<th>security rating</th>
<th>LPCS ref no.</th>
<th>brickwork</th>
<th>blockwork</th>
<th>concrete</th>
<th>structural steel</th>
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</thead>
<tbody>
<tr>
<td>Centurion A305SS SR1</td>
<td>131e</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Centurion A305PS SR1</td>
<td>131e</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Centurion A305SA SR1</td>
<td>131e</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Centurion A305PA SR1</td>
<td>131e</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Centurion A305PG SR1</td>
<td>131e</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Centurion A310SS SR2</td>
<td>131e</td>
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<td>✓</td>
<td>✓</td>
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<tr>
<td>Centurion A311IS SR2</td>
<td>131e</td>
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<tr>
<td>Centurion A315 SR3</td>
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<tr>
<td>Centurion A320 SR4</td>
<td>131b</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Openings

Roller shutters are manufactured to suit the specific opening. Maximum and minimum design sizes in the table below are approved by the LPCB to LPS1175.

<table>
<thead>
<tr>
<th>product name</th>
<th>min height</th>
<th>min width</th>
<th>max height</th>
<th>max width</th>
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</thead>
<tbody>
<tr>
<td>Centurion SR4</td>
<td>2,000</td>
<td>2,500</td>
<td>7,000</td>
<td>9,000</td>
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<td>Centurion SR3</td>
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<tr>
<td>Centurion SR2</td>
<td>1,000</td>
<td>1,000</td>
<td>7,000</td>
<td>7,000</td>
</tr>
<tr>
<td>Centurion SR1</td>
<td>1,000</td>
<td>1,000</td>
<td>7,000</td>
<td>7,000</td>
</tr>
</tbody>
</table>
Shutter operation
The method of opening security shutters depends on the size and weight of the curtain and customer preference. Single phase (230 V) and three phase (415 V) electrically driven doors are operated with an internal keyswitch.

<table>
<thead>
<tr>
<th>Door</th>
<th>LPCB ref no.</th>
<th>opening type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>push up</td>
</tr>
<tr>
<td></td>
<td></td>
<td>tube motor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>direct drive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>electric chain</td>
</tr>
<tr>
<td></td>
<td></td>
<td>drive barrel</td>
</tr>
<tr>
<td>Centurion SR4</td>
<td>131b</td>
<td>✔</td>
</tr>
<tr>
<td>Centurion SR3</td>
<td>131e</td>
<td>✔</td>
</tr>
<tr>
<td>Centurion SR2</td>
<td>131e</td>
<td>✔</td>
</tr>
<tr>
<td>Centurion SR2 Ins</td>
<td>131e</td>
<td>✔</td>
</tr>
<tr>
<td>Centurion SR1</td>
<td>131e/01-05</td>
<td>✔</td>
</tr>
</tbody>
</table>

Manual Push Up
The roller assembly is constructed from a 9' gauge galvanised steel tube. High quality helically wound counter balance springs, mounted inside the tube allows operators to push-up and pull-down the curtain smoothly and effortlessly. The tube assembly is hung from endplates via galvanised cups.

Push up operation is suitable for smaller openings where frequency of operation is limited and is typically used on smaller openings such as doorways, windows, serveries or bars. Openings exceeding 2500 mm x 2500 mm should be electrically operated.
Operation

Electric Tube Motor
The roller assembly is constructed from high-quality steel tubes, the outside diameter and wall thickness suit the door size. Contained within the barrel is a 240 volt tubular motor set in high-grade castings and sleeves. The motor is totally concealed within the barrel and comes with a manual over-ride (at high level) to allow operation in the event of power failure. The full barrel assembly is hung from endplates via galvanised steel fixing brackets and safety brake.

Any shutters are fitted with a safety brake to prevent the shutter from falling under its own weight in the event of motor or gearing failure. The motor is mounted within the roller mechanism, which reduces the amount of space required to accommodate the head assembly.

Single-phase tube motors are typically used on shop-front, office or domestic, low use applications. Safety brakes (anti fall-back device) are fitted on all shutters to comply with European regulations. Emergency hand operation is provided as standard via a manual eyelet for crank handle operation in event of power or mechanical failure. Electric tube motors are available with a wide range of electrical control options.
**Operation**

**Electric Direct Drive (safe-drive)**

The roller assembly is constructed from mild steel tube, the outside diameter and wall thickness is dependant on the door size and is mounted on an 8 mm (min) thick mild steel spools and solid keywayed shafts, eliminating the need for counter balance springs or gear trains.

EDD’s are fitted with an integral safety brake (anti fall-back device) to comply with European safety regulations. Emergency hand chain, operable from floor level is provided as standard in the event of electrical or mechanical failure.

The Ascot EDD operation is available with an extensive range of plug-in, pre-wired, low voltage control options, varying from a simple push-button or keyswitch.
Roller Shutter Options

Locking
All shutters are furnished with two high security bullet locks. The lock housings are bolted directly to the guide section. For shutters over 5000 mm wide, (SR4) a ground lock is fitted to the bottom rail for added protection against levering and jacking.

Bullet lock interlocks
On electrically operated shutters, bullet locks can be provided with a control panel to prevent operation whilst in the locked position, warning signs can be provided.

Finish
Centurion shutters are finished in standard galvanised steel or mill finished aluminium. Polyester power coat finish in a range of RAL or BS references are available as an option.

Hood coil casing & fascia’s
The roller assembly can be encased in a galvanised steel pressed coil casing to provide protection to the barrel and curtain, and provides a better appearance.

Silver Lance Anti Ram Post
Where the risk of ram raids is high, the Ascot Silver Lance post provides a second line of defence to buildings from the threat of a forced entry using a vehicle. Manufactured from 90 tonne grade high tensile steel, Ascot Anti-Ram posts are positioned 750 mm apart behind the shutter and are easily removed during working hours.

Keyswitch
High security tamper proof keyswitch to operate tube motor shutter.
Service and Maintenance

DORMA’s acquisition of Ascot Doors gives an unrivalled capability to service and maintain all your access requirements, combining our respective skills in commercial and industrial doors.

Service
When you choose DORMA, you are supported by a nationwide team of local, accredited and fully trained engineers throughout the UK & Ireland, 24 hours a day, 7 days a week. Our specialised service covers all brands of automatic door, manual door closers, industrial doors and roller shutters to offer you a complete solution from front to back of house.

Maintenance and Repairs
Damaged doors cause downtime to operations, whether it’s people traffic or moving goods in and out of buildings. Business today is moving faster; damage and malfunctions must be repaired quickly and professionally by trained technicians. Whether it’s one of our doors or another make, we can fix it for you.

Service Contracts
All doors, whether manual, automatic or industrial use complex components which are subject to punishing wear and tear. Therefore to ensure that they continue to function as they should, regular service, maintenance and modernisation is imperative. Regular door maintenance helps prevent accidents, reduces breakdowns and the accompanying inconvenience, and prolongs the life of the door.

Contact service:
0800 212 380
callout@dorma-uk.co.uk

Construction Skills Certification Scheme
Construction Skills Certification Scheme (CSCS) was set up to help the construction industry improve quality and reduce accidents. Our engineers hold CSCS cards which are increasingly demanded as proof of occupational competence by contractors, public and private clients and others.

due to a policy of progressive design we reserve the right to alter specification without prior notice
service branches

new door enquiries
01204 545 801

24/7 service hotline
0870 555 6644

North East
SS Aidan Court, Bede Ind. Est.
JARROW, Northumberland NE32 3EF
Tel: 0191 428 7300
Fax: 0191 428 7398

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Unit 1, Almond Road, Middlefield Ind. Est.
FALKIRK, Stirlingshire FK2 9HQ
Tel: 01324 678 770
Fax: 01324 678 771

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COLCHESTER, Essex CO4 9HT
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Fax: 01206 843 319

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Tel: 01226 246 667
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Fax: 01278 439 200

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