

# STEEL DOOR SOLUTIONS

*by*

**ROBUST**  <sup>®</sup>

ROBUST



***External Steel***

***Access & Exit Doors***

**Doorsets to offer accessibility and strength for your building perimeter**



Extensive Colour range

Concealed or surface closures



Protection against attack.

Wide range of vision panels, with or without frames, appropriate to most fire or security specification.



Limitless variety of locking including Panic and Maglock



Anti-fingertrap jambs available



Stainless Dog-Bolt Hinges for security



Durable Polyester Powder Coating plus alternative finishes

Up to 240 mins Fire Protection

*Steel Exterior Doors provide safe evacuation with controlled access*

*Talk to our knowledgeable team today*

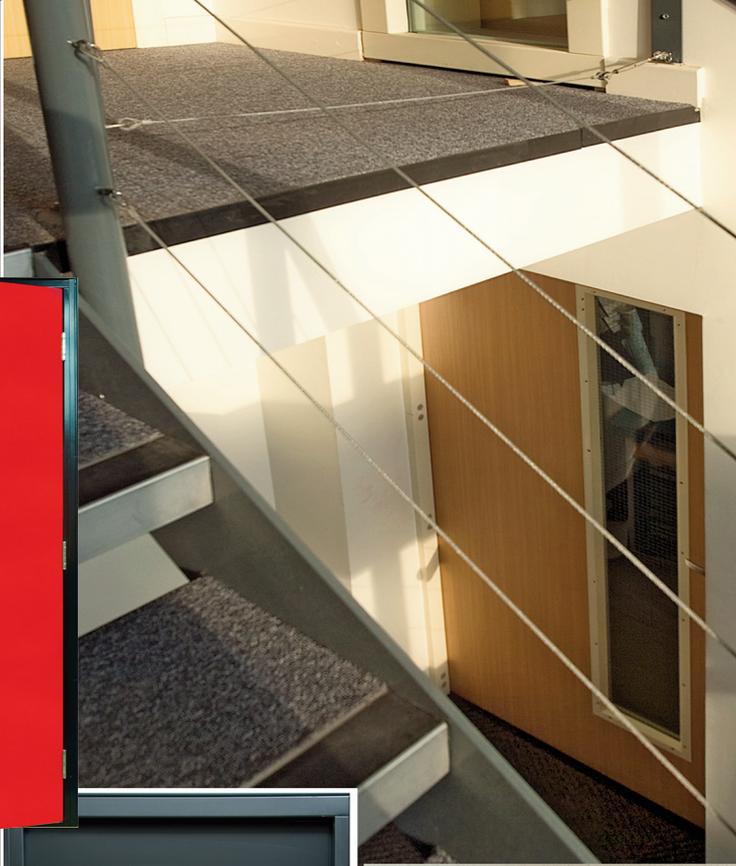


ROBUST UK LTD Brookhouse Way, Brookhouse Industrial Estate, Cheadle, Staffordshire, ST10 1SR  
Tel: +44 (0)1538 752600 • Fax: +44 (0)1538 752604 • Email: sales@robust-uk.com

**Cost effective doorsets designed to 'fit & forget' throughout your building**

*Individual specifications may vary as Robust conduct a policy of continuous product development.*

ROBUST



**Steel**

**Interior Doors**

## Cost effective doorsets designed to 'fit and forget' throughout your building



Extensive Colour range

Concealed or surface closures



Enhanced Security.

Wide range of vision panels, with or without frames, appropriate to most fire or security specification.



Limitless variety of locking including Panic and Maglock

Anti-fingertrap jambs available



Durable Polyester Powder Coating; alternatives include stainless & wood effect to allow seamless integration with wooden components

A wide variety of frames allow use of inner & outer architrave

**Steel Interior Doors provide security with aesthetics**

**Talk to our knowledgeable team**



Stainless Dog-Bolt Hinges for security

Up to 240 mins Fire Protection



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## Flexible design enables endless variation to meet practically every demand



# PROJECT REPORT

*New Build on virgin site for major car distributor*

## AUDI TAMWORTH

- Project:** Extensive showrooms, offices and service facilities for Audi Tamworth.
- Location:** Cardinal Point motor park, Tamworth, West Midlands.
- Developer:** Volkswagen
- Architects:** Audi Architecture.
- Builder:** BDB Design Build Ltd.



To maintain the cladding lines on this new showroom the architect required the door to be overclad and "hidden" within the cladding. The Robust steel door was fitted with specially extended hinges in order for the perforated cladding material to be fitted to the face of the door, while minimising the visible lines of the door.



Standard Robust steel, powder coated, doors were also supplied for other elevations.



PROJECTS



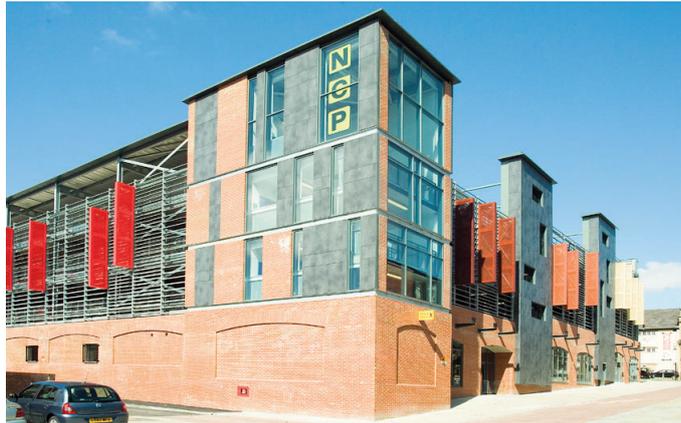
# PROJECT REPORT

Major Parking developments in Greater Manchester



## NCP CAR PARKS

**Project:** Two NCP car parks - Toppway & Deane  
**Location:** Bolton  
**Developer:** National Car Parks Ltd  
**Architects:** Ingleton Wood  
**Builder:** McClaren Construction Ltd.



Robust supplied 50 doors for a variety of applications and were chosen due to their ability to provide for all the disparate requirements throughout the project.

In a public building consideration has to be given to all users and to ensure all doors comply with current legislation. The doors were designed to assist visibly impaired users by the use of strong contrasting colours on the leading edge. Some doors were fitted with automatic door operators whilst had maglocks to hold the doors open, until required to close during a fire alarm to compartmentalize the building.

Doors were integrated into the fire protection strategy and to offer perimeter security. A number were also incorporated into the car park's access control system.





## PROJECT REPORT

*A major Office and R&D facilities for leading telecoms company Ericsson.*

### **ERICSSON Ltd.**

<i>Project:</i>	Extensive offices and Research & Development facilities.
<i>Location:</i>	International Ansty Business Park in the West Midlands.
<i>Developer:</i>	Highbridge Properties Plc.
<i>Architects:</i>	Allies & Morrison.
<i>Builder:</i>	Bowmer & Kirkland.



ROBUST supplied a variety of steel doors to these prestigious buildings, in particular doors and adjacent screens in a visually frameless design - these included fire escape and acoustic fully louvred doors. Security access control doors were also included in the contract.



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PROJECTS





# PROJECT REPORT

Customised Doors for a Retail Group



## Home Bargains

**Project:** Home Bargains chain of Retail Stores  
**Location:** Nationwide  
**Project Management:** Chartwell Project Management.  
**Builder:** Various



The doors are manufactured by Robust to the clients own specifications of material & hardware and have been successfully installed in a large number of locations nationwide.

Retailers have very specific requirements for the hardware and performance of each door within a building. Fire escape doors need to allow easy egress from a building in the event of a fire whereas delivery doors need to be both secure and also accessible for drivers who may deliver during out of hours periods.

Home Bargains and Robust have developed a specification which combines ease of use for staff with security and accessibility so that the doors offer a combination of security and accessibility.





# PROJECT REPORT

Urban Ring Road Refurbishment

## Reurbishment of Meir Road Tunnel Emergency Doors

*Project:* Refurbishment of A50 Meir Tunnel  
*Location:* Meir, Stoke on Trent  
*Client:* SPIE WHS



As part of an on-going project with SPIE WHS all existing road tunnel doors in the Meir Tunnel, on the A50 at Stoke-on-Trent, were replaced by Robust. Robust having provided maintenance to the project for a number of years. Heavy traffic and pollution necessitated their replacement with 316 grade stainless steel doors with full stainless steel hardware. The latest double swing doors incorporated a specially designed panic escape mechanism, by Surelock McGill, allowing panic egress on each leaf from either side.



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PROJECTS



## PROJECT REPORT

### Mount St Mary's Catholic High School

*Project:* Refurbishment to school buildings.  
*Location:* On Richmond Hill, Leeds.  
*Contractor* Emmerson Doors Ltd, Sherburn in Elmet.



In conjunction with a trade partner ROBUST were pleased to be involved in the design and replacement of a number of doors in strategic positions throughout the school. The doors needed to offer safety & security to staff and pupils but also incorporate a design sympathetic to the existing architecture as areas of the school have "Listed Building" status. The work was undertaken with a view to minimising additional builders work and any disruption to an active school.

The challenging environment of a school building demanded the doors were designed to a very high specification. The volume of pupils using the doors in short periods throughout the day meant that these doors, unlike basic fire exit doors, needed to accommodate high intensity usage on a regular basis. The safety of the pupils was a paramount concern with the doors incorporating anti-fingertrap jambs & unrebated meeting stiles ensuring young fingers could not be trapped.

On any public building these days security is an important consideration and the doors were manufactured with additional internal reinforcement to enhance their integrity. Concealed door closers & recessed maglocks were also used to ensure the doors return to a secure closed position when not in use, preventing unauthorised access.

The doors were fitted with maximum glazed apertures and minimal framing these doors allowed ample light into the corridors and buildings.

Where existing doors had side screens and overpanels replacements were manufactured to ensure consistency of design throughout the project.





# PROJECT REPORT

One of a series of new Staffordshire Fire Stations

## Sandyford Fire Station

<b>Project:</b>	New Community Fire & Rescue Station.
<b>Location:</b>	Sandyford, Stoke-on-Trent
<b>Developer:</b>	Staffordshire Fire & Rescue PFI.
<b>Architects:</b>	3d Architects Ltd, Manchester.
<b>Builder:</b>	Thomas Vale Ltd.



Robust have supplied a number of 'Secure by Design' approved doors to several of the new community Fire Stations for Staffordshire Fire Service, including Sandyford.

These doors offer a recognised level of resistance to burglary and are self-closing, ensuring the station is never left insecure when left quickly for an emergency. Key entry is thus required every time the door closes.

The doors feature flush door panels with security astragal anti-tamper stainless steel hinges, combining tested physical security, enhanced thermal U-values and an aesthetically pleasing design.

Robust doors "fit" & look right in a modern building design.



PROJECTS





## PROJECT REPORT

*A new state-of-the-art school with 'Technology' status.*

### **Sir William Stanier Community School.**

<b>Project:</b>	A new Secondary School resulting from the merger of two local schools.
<b>Location:</b>	Crewe, Cheshire.
<b>Developer:</b>	Joint initiative between Department of Children, Schools & Families and The Wellcome Trust.
<b>Architects:</b>	AEDAS.
<b>Builder:</b>	Willmott Dixon Ltd.



ROBUST manufactured perimeter steel doors provide an attractive appearance to the exterior of a modern educational establishment as well as satisfying all the Regulatory requirements, in particular Parts L & B of the Building Regs.



PROJECTS





# PROJECT REPORT

*A major educational development in Greater Manchester*

## **TRAFFORD COLLEGE.**

**Project:** Extensive rebuilding & extension to a Beacon College of Further Education resulting from the merger of two colleges.

**Location:** Altringham, Greater Manchester

**Developer:** Trafford Council.

**Architects:** Stephenson & Bell.

**Builder:** Miller Construction UK Ltd.



Trafford College is an excellent example of the flexibility of ROBUST to provide steel doors specifically tailored to the architects requirements - physically and aesthetically.

ROBUST supplied large Fire Resistant Steel Doors for the Fire Partitions, of a size that could not be fulfilled in timber. To provide a clean, crisp, corridor line the doors fit into wall pockets, retained in position magnetically making them virtually invisible when open. The doors have special detailing to the vision panels and provide closure in case of fire. Frames were manufactured & painted to match.

ROBUST also supplied copper clad doors to provide a special feature to the Admin section. The copper was over-clad to a Fire Resistant Steel Door thus satisfying all Regulatory and aesthetic requirements.



# STEEL DOORSET PRODUCT SELECTOR



USE	REF	TYPE	NOTES
GP External	 FD-A	EXTERNAL FLUSH DOOR	Can be fire-rated with appropriate hardware & seals.
GP Internal	 FD	INTERNAL FLUSH DOOR	
Up to 60min Fire Protection	 FD60	FIRE DOORS	Internal & External Use
Up to 120min Fire Protection	 FD120	FIRE DOORS	
Up to 240min Fire Protection	 FD240	FIRE DOORS	
90° Swing either way	 DSD	DOUBLE SWING DOORS	
15min enhanced protection against intruders	 SD2	SECURITY DOORS	
20min enhanced protection against intruders	 SD3	SECURITY DOORS	
30min enhanced protection against intruders	 SD4	SECURITY DOORS	Additionally Blast Tested to BS13124-2.
30min enhanced protection against intruders (higher level of attack)	 SD5	SECURITY DOORS	
Plant Area Ventilation	 LD	LOUVRED DOORS	Side Screens & Panels can be incorporated
Plant Area Ventilation	 TV	"Tuff-Vent" DOORS	Enhanced Airflow & Security
Noise Reduction Between Areas	 AC35	ACOUSTIC DOORS	We recommend these doors are fitted by Robust approved installers
Noise Reduction Between Areas	 AC45	ACOUSTIC DOORS	
Noise Reduction Between Areas	 AC50	ACOUSTIC DOORS	
Communal Entrance Doors	 SBD	SECURE DOORS	Secure, attractive & dependable entrances
Wood Laminate	 WL	LAMINATED DOORS	Wood Finished Doors



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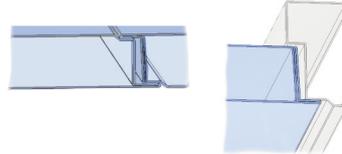
# EXTERNAL STEEL DOOR "FDA"

Fully **CE** compliant.  
Tested to EN14351-1 product compliant standard



## DOOR LEAF

- Thickness:** 54mm
- Material:** 1.2mm corrosion resistant Zintec/Aluzinc sheets as standard, wide variety of colours and finishes available. Also Stainless Steel.
- Infill:** Self supporting resin-impregnated honeycomb core as standard. Optionally Mineral Wool, Polyurethane or Solid Timber.
- Construction:** Doorblade manufactured from two 1.2mm sheets lockformed together, by bonding skins around a rigid core, using a no-weld construction.

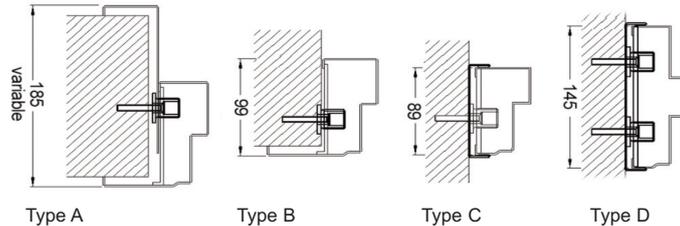


Astragal details



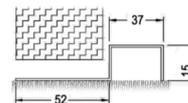
## DOOR FRAME

- Construction:** Folded from 1.6mm Zintec/Aluzinc. Screw and tab construction with 4no. adjustable fixing feet per jamb, variable sub-frame supplied as standard to accommodate site of tolerance -0/+30mm.
- The frame is fitted with 4no. Dog-bolt hinges as standard.



## THRESHOLD

- Standard:** 15mm rebated threshold.
- Optional:** 5mm driveable (DDA compliant).  
12.5mm 564A Aluminium (DDA compliant).



## THERMAL 'U' VALUES

Depending on construction and infill values up to 3.1 - 1.6 w/m<sup>2</sup>k are obtainable.  
See *Thermal datasheet for full details*, (click here)

## FINISHES

- Standard:** Polyester Powder coated from Standard Colour Range.
- Optional:** Polyester Powder Coating from non-standard colour range.  
PVC laminate from standard range.  
Woodgrain PVC laminate.  
Stainless steel, brushed, polished or patterned.  
Unfinished for site finishing.



## SIZES

- Size:** Doors are custom manufactured in 10mm increments for single openings 690mm to 1300mm and double openings 1290mm to 2600mm, at heights up to 2900mm.

Contact the Sales office for special configurations and finishes.



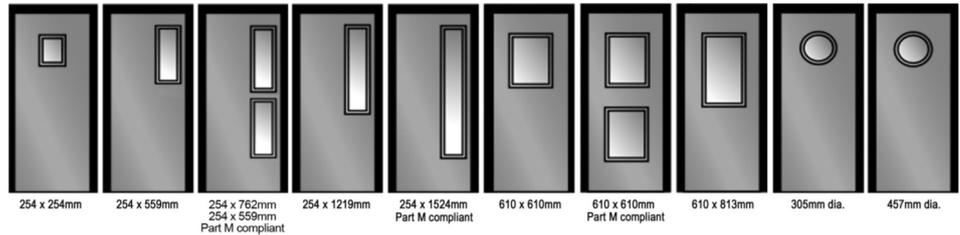
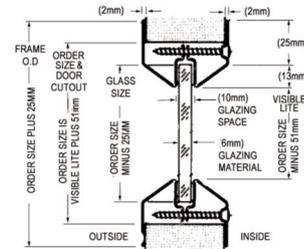
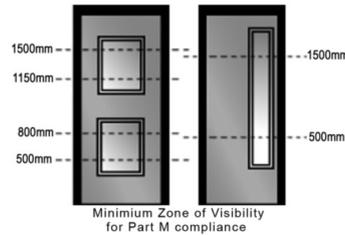


## VISION PANELS

**Guidance Notes:** To comply with Part M of the Building Regulations 2004 doors circulation across routes should have visibility glazing. (Vision panels less than 50% of the total door area are exempt from Part L of the Building Regulations.)

**Construction:** Welded construction from 1mm cold rolled steel, screwed together from one side.

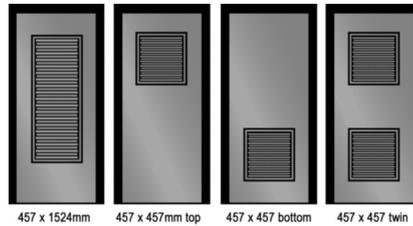
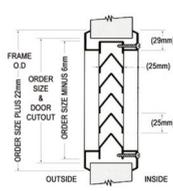
**Options :** Standard glazing is 6.4mm clear laminate. Alternative options include 6mm GWPP or a 19mm Double Glazed Unit (6.4/6/6.4 mm laminate). Custom sizes and glass are available to customer requirements.



## LOUVRE PANELS

**Construction:** Standard Louvre offers 50% air flow with louvre blades constructed to stop birds. Frames are 1.2mm thick and blades 0.7mm.

**Options :** Fly mesh available as an optional extra, also custom sizes.

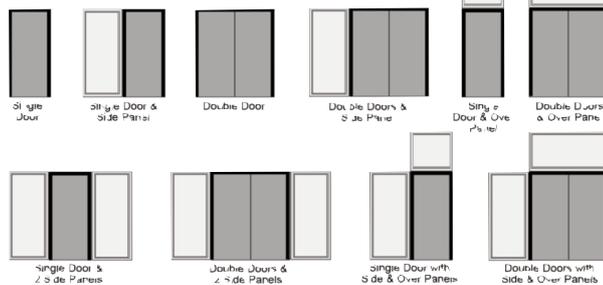


## PANEL ARRANGEMENTS

**Construction:** Panels can be solid, glazed or louvred.

**Sizes:** Standard side panels are available up to 1340mm wide x 2900mm high. Standard over panels are available up to 1340 x 2900mm (single door) or 1340 x 2600mm (double door).

**Options:** Hinged panels. Removeable, flush, glazed or louvred are all available. Please consult the Sales office with specific requirements.



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EXTERNAL STEEL



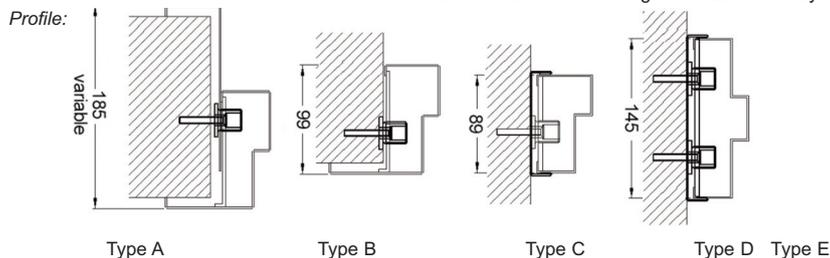
## INTERNAL FLUSH STEEL DOOR "FD"

### DOOR LEAF

- Thickness:** 48mm
- Material:** 1.0mm corrosion resistant Zintec/Aluzinc sheets as standard, wide variety of colours and finishes available. Also Stainless Steel.
- Infill:** Self supporting resin-impregnated honeycomb core as standard. Optionally Mineral Wool or Polyurethane.
- Construction:** Doorblade manufactured from two 1.0mm sheets lockformed together, by bonding skins around a rigid core, using a no-weld construction.

### DOOR FRAME

- Construction:** Folded from 1.6mm Zintec/Aluzinc.  
Screw and tab construction with 4no. adjustable fixing feet per jamb, variable sub-frame supplied as standard to accommodate site tolerance of -0/+30mm.  
The frame is fitted with 3no. Class 13 stainless steel hinges with 2no. security dog bolts



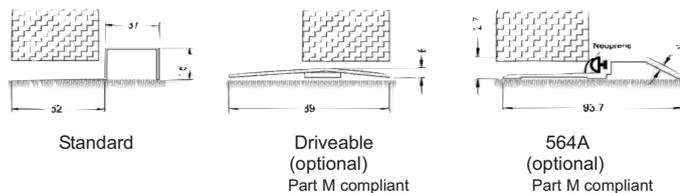
### ACOUSTIC VALUES

Depending on construction and infill values of 22 - 28 Db are obtainable.

See Acoustic datasheet for full details. [\(Click here\)](#)

### THRESHOLD

- Standard:** 15mm rebated threshold.
- Optional:** 5mm driveable (DDA compliant).  
12.5mm 564A Aluminium (DDA compliant).  
No threshold.



### FINISHES

- Standard:** Polyester Powder coated from Standard Colour Range.
- Optional:** Polyester Powder Coating from non-standard colour range.  
PVC laminate from standard range.  
Woodgrain PVC laminate.  
Stainless steel, brushed, polished or patterned.  
Unfinished for site finishing.

### SIZES

- Size:** Doors are custom manufactured in 10mm increments for single openings 690mm to 1390mm and double openings 1290mm to 2600mm, at heights up to 2900mm.

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INTERNAL FLUSH



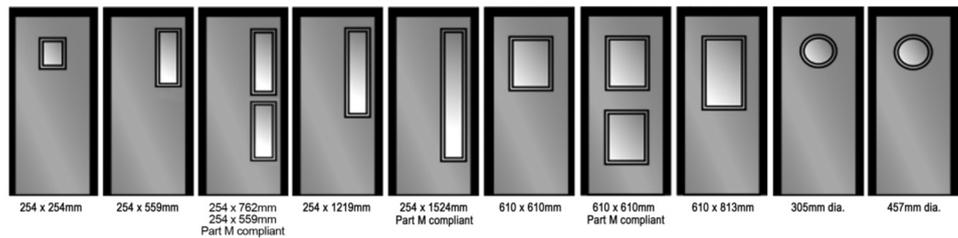
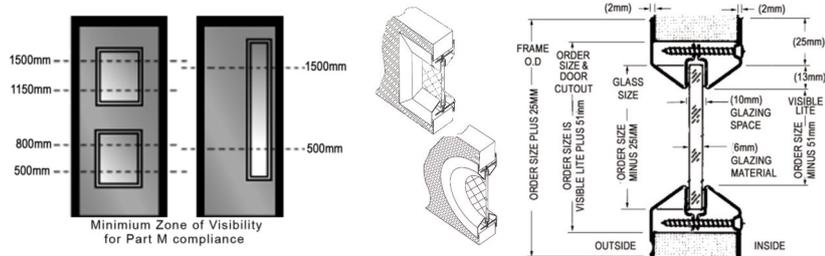


## VISION PANELS

**Guidance Notes:** To comply with Part M of the Building Regulations 2004 doors circulation across routes should have visibility glazing. (Vision panels less than 50% of the total door area are exempt from Part L of the Building Regulations.)

**Construction:** Welded construction from 1mm cold rolled steel, screwed together from one side.

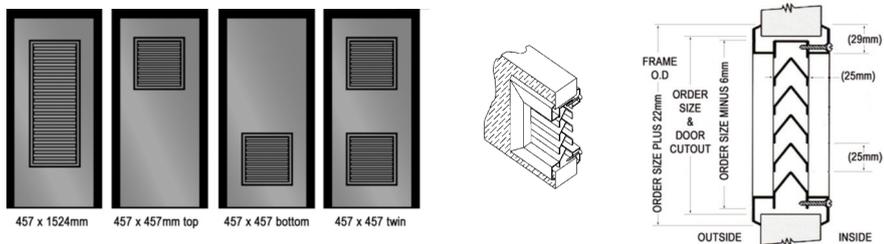
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## LOUVRE PANELS

**Construction:** Standard Louvre offers 50% air flow with louvre blades constructed to stop birds. Frames are 1.2mm thick and blades 0.7mm.

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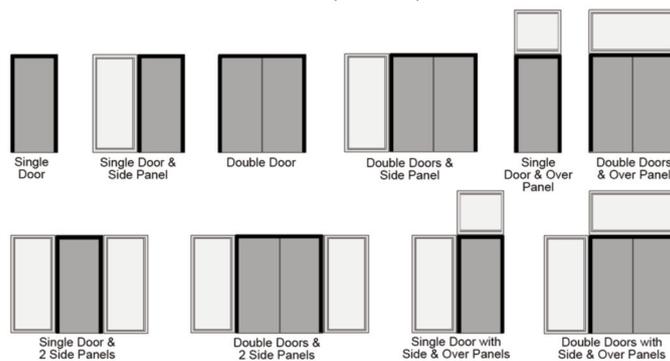


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**Sizes:** Standard side panels are available up to 1340mm wide x 2900mm high.  
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INTERNAL FLUSH





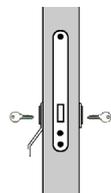
# DOOR LOCKING

All lock cases are tested to BS EN 12209 and all lever furniture is tested to BS 1906.

## MORTICE LOCKS & LATCHES

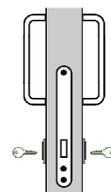


DOOR LOCKING



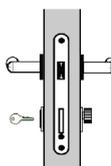
### DEADLOCK ALT 1

Deadlock fitted with external cylinder pull, double cylinder and internal escutcheon. Standard for plant rooms.



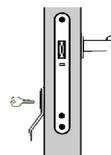
### DEADLOCK ALT 3

Deadlock fitted with double 19mm bolt through handle. Double cylinder with escutcheons as standard.



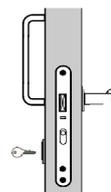
### SASHLOCK

The standard fitting for sashlocks is with pair of 19mm stainless levers and a double cylinder deadbolt. Illustrated is optional thumbscrew on non-secure side.



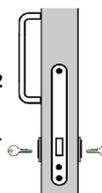
### NIGHTLATCH ALT 1

Suitable for automatic locking entrance doors, used manually or in conjunction with an electric strike. Illustrated optional cylinder pull.



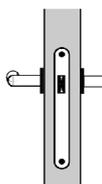
### NIGHTLATCH WITH SNIB

The snib allows the locking latch to be secured within the lockcase giving free access. Doors with night latches are normally fitted with closers.



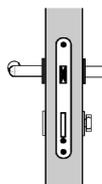
### DEADLOCK ALT 2

Deadlock fitted with 19mm bolt through handle, and push plate to opposite side. Double cylinder with escutcheons as standard.



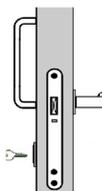
### LATCH

The standard latch fitting is with a pair of 19mm stainless steel levers, suitable for non-secure doors to provide privacy.



### TOILET LOCK

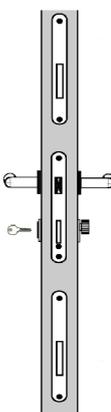
As the sash lock but the deadbolt is fitted with a privacy/indicator set instead of a cylinder.



### NIGHTLATCH ALT 2

As Alt 1 but fitted with a pull handle. Doors fitted electric strikes provide key access for authorised persons as a manual override, whilst the internal handle gives escape at all times.

## MORTICE MULTI-POINT LOCKING



### 3-POINT SASHLOCK

This lock has a sashlock fitted centrally with top & bottom deadbolts. The cylinder operates all locks from the central point. Either a double or euro cylinder & turn can be fitted. An escape version is also available. Note this lock is only available on custom built doors.



### ADDITIONAL LOCKS

Additional locks, usually deadlocks, can be fitted to standard doors to aid security. In the illustration are additional deadlocks & a sashlock, which can be fitted in either the upper or lower quarter, or both. The standard option is two locks, one fitted centrally and one in the lower quarter (it is more difficult to apply leverage to the upper half of a door when attacking it).

Additional locks can be fitted with panic bolts and latches to provide night time security, subject to Fire Regulations.



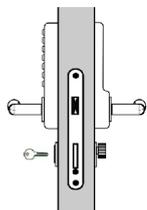


## DOOR LOCKING

### LOCKING: ACCESS CONTROL



DOOR LOCKING



#### MECHANICAL KEYPAD

As standard this is provided with a latchbolt complete with a pair of stainless steel levers and a deadbolt for security, operated by a double cylinder. Illustrated is optional thumbscrew on non-secure side.

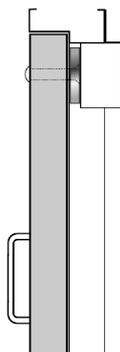


#### ELECTRIC STRIKE

As standard the door blade is fitted with a nightlatch complete with an external pull handle and internal half-lever. The lever allows manual egress from the inside (this can be replaced by a push button or a secure access system). A half-cylinder can be fitted to allow fail-safe override.

The strike can be activated by the full range of secure access systems, eg. keypad, swipe card, etc.

Available in 12 or 24vDC and with Fail Open (power to hold strike) or Fail Closed (power to open).

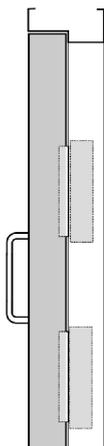


#### ELECTRO-MAGNET LOCK, SURFACE MOUNTED

Available in 12 or 24vDC the magnet can be activated by the range of security access systems, eg. keypad, swipe card, etc. It is fitted to the frame with a bolt through armature plate on the door blade.

The magnet is locked when power is applied and automatically Fails Open when is removed.

The lock can be fitted to single or double doors.



#### ELECTRO-MAGNET LOCK, CONCEALED MOUNTING

The door is fitted with two mag-locks flush mounted into a special frame section, whilst the armature plates are recessed into the door blade.

This arrangement is ideal for high traffic entrance doors to offices and flats, as it provides an esthetically pleasing door offering high security and resistance to attack or abuse.

The lock can be fitted to single or double doors (on double doors only active leaf operation is allowed).



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# PANIC ESCAPE HARDWARE

Every new build or replacement panic and emergency exit application is required to comply with European safety legislation, the relevant standards are EN1125 & EN179 which replace BS5725:pt1:1981.

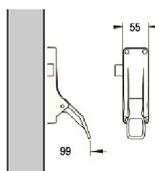


PANIC ESCAPE

## EMERGENCY APPLICATION - EN 179

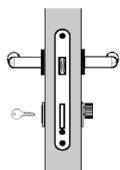
An emergency application where the exit door is in a low occupancy environment and will only be used by trained personnel, typically a workplace or somewhere not accessed by the public. Examples being offices, private flats & apartments, store rooms and boiler rooms.

This application requires only a single point of contact, eg pushpads.



### RIM PANIC PAD

A surface mounted single point panic pad, suitable for light to medium security.

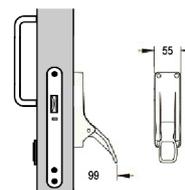


### ESCAPE SASHLOCK

A mortice sashlock with cylinder and turn, ideal for doors combining access with escape and medium security. The door can be left unlocked for daytime latched access. An internal lever retracts latch and deadbolt allowing escape when the door is locked.

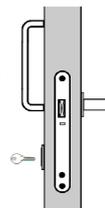
### MORTICE PANIC PAD

Surface mounted panic pad with single point locking from a mortice night latch, for medium security. Self locking on closure. Shown with optional external cylinder and pull.



### ESCAPE NIGHT LATCH

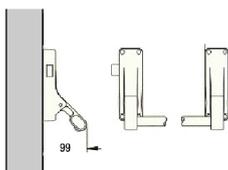
An internal lever handle retracts the latch bolt allowing escape, with the door re-locking on each closure. Can be fitted with external cylinder and pull handle.



## PANIC APPLICATION - EN 1125

A panic application occurs where the exit door is used by the public and provides "safe & effective escape through the doorway with the minimum effort & without prior knowledge of operation", typically theatres, shops, schools, hospitals & cinemas.

This applications require an operating device that covers the width of the door, eg. crossbars or touchbars.

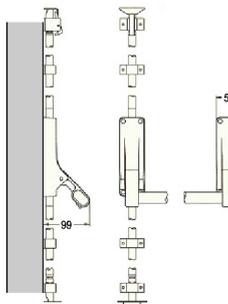
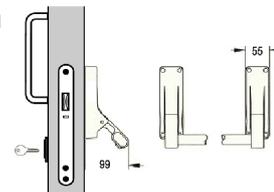


### RIM PANIC LATCH

Surface mounted, single point rim panic latch.

### MORTICE PANIC NIGHT LATCH

A mortice night latch operated by an internal crossbar, providing medium security. Can be fitted with external cylinder as shown, to give external access whilst still self locking.

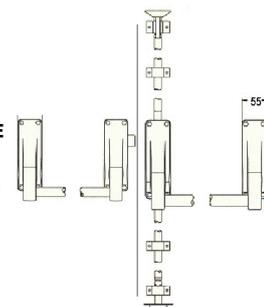


### TWO POINT PANIC BOLT

Surface mounted, two point bolting panic with a full width internal crossbar.

### DOUBLE DOOR ESCAPE

The standard option for rebated double doors. The combination of panic latch on the active leaf and a bolt on the inactive one allows independent escape.



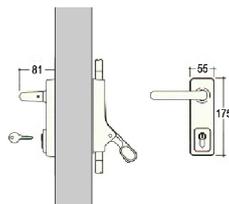


## PANIC ESCAPE HARDWARE

### OUTSIDE KEY ACCESS

Escape door furniture can be fitted with a number of options for access from outside. EN179 & EN1125 door furniture is primarily designed as a means of escape and even when fitted with outside access should not be used as the main access door.

For high frequency access the best results will be those based on mortice lockcases, such as escape sashlock or night latch, but they will be a compromise between ease of escape and practical durable access.

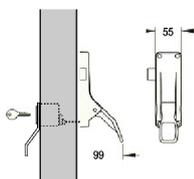


#### SURFACE MOUNTED OUTSIDE KEY ACCESS WITH LEVER

Supplied as standard with a Euro single cylinder for use with panic latches, pads and bolts. Suitable for infrequent access and secondary to escape.

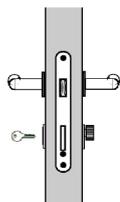
When in the locked position the lever cannot be operated. When unlocked it will remain active until re-locked.

Unit can be fitted with a knob in lieu of lever but will then not comply with the DDA Regs.



#### ROUND RIM CYLINDER WITH CYLINDER PULL

A budget alternative to the above. The main functional difference is the door will re-secure each it is closed, a key being required to open it.



#### EURO CYLINDER

The mortice locks in the panic range can be fitted with a Euro cylinder to provide outside key access.

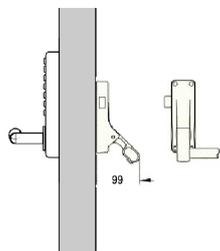
**Single Euro Cylinder:** For use with Rim Panic Push Pad Night Latch and the Escape Night Latch. The door will always be secure as the key extracts the latches allowing egress but is re-secured every time it is locked.

**Double Euro or Euro Cylinder & Turn:** For use with the Escape Sashlock. Once opened the door remains unlocked for egress until re-locked.

### ACCESS CONTROLLED EXTERNAL ACCESS

The panic latch or panic pad can be fitted with a mechanical keypad to allow controlled access outside without the need for a key. The keypad does not interfere with the escape function of the inside panic unit but cannot be used with panic bolts.

Panic latches and pads are primarily designed as a means of escape and should not be used as high frequency access doors. Care should be taken when specifying this combination.



#### MECHANICAL KEY PAD

The Mechanical Key Pad is a panic bar internally operating a mortice latch-bolt complete with a stainless steel lever externally controlled by a 5-digit key code.



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PANIC ESCAPE



## FIRE RESISTANT STEEL DOORS (Single Swing)

Robust has successfully redesigned steel doors away from their original industrial roots to provide a highly cost-effective single solution to fire protection, security, durability and aesthetics. The doors, fitted in internal and external applications in a wide variety of wall constructions, are designed to protect personnel & property from the spread of flames & smoke. Robust Doors offer substantial benefits over comparable timber doors in strength, durability & security.

The range has been tested to BS 476 Parts 20 & 22, BS EN 1634 and holds CERTIFIRE certification.

### VERSIONS

- FD60:** Providing protection up to One Hour (60 minutes) latched or unlatched.
- FD120:** Providing protection up to Two Hours (120 minutes) latched or unlatched.
- FD240:** Providing protection up to Four Hours (240 minutes) latched or unlatched.
- Please contact the Sales Office for special configurations.

### DOOR LEAF

**Production Sizes:** All fire resistant doors are custom made. The maximum size varies according to fire rating as shown below for Mild Steel and 316 or 304 Stainless Steel. #

		FD60	FD120	FD240
<b>Single Doors Latched</b> (Single Swing)	Maximum Width mm	1385	1385	1385
	Maximum Height mm	2860	2860	2860
	Maximum Area m <sup>2</sup>	4.0	4.0	3.56
<b>Single Doors Unlatched</b> (Single Swing)	Maximum Width mm	1285	1285	1285
	Maximum Height mm	2500	2500	2500
	Maximum Area m <sup>2</sup>	2.96	2.96	2.96
<b>Double Doors</b> (Single Swing) (Latched or Unlatched, Equal or Unequally split)	Maximum Width mm	2700	2700	2700
	Maximum Height mm	2860	2860	2860
	Maximum Area m <sup>2</sup>	4.0	4.0	3.56

**Thickness:** 48mm.

**Material:** 1.0mm corrosion resistant Zintec/Aluzinc sheets as standard, with a wide variety of colours and finishes available.

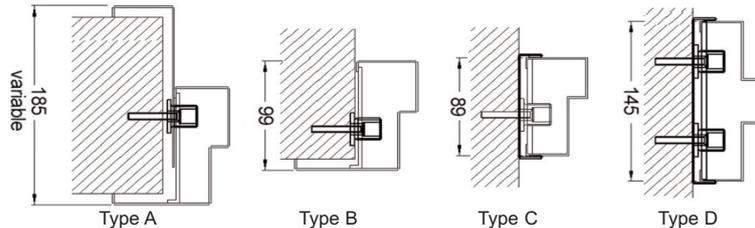
**Infill:** Self supporting resin-impregnated honeycomb core, with the option of mineral wool.

**Construction:** A non-welded construction from two skins of Zintec folded around a rigid core.  
# Stainless Steel FD240 Double doors must be fitted with Z and Astragal section to form a rebated meeting style,

### DOOR FRAME

**Construction:** Folded from 1.6mm Zintec/Aluzinc.  
Screw and tab construction with 4no. adjustable fixing feet per jamb, variable sub frame supplied as standard to accommodate site tolerance of -0/+30mm.  
The frame is fitted with 3no. Class 13 stainless steel hinges with 2no. security dog bolts.

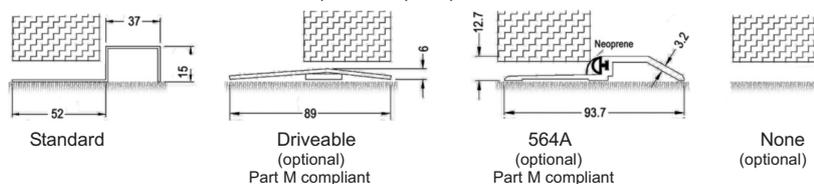
**Profile:**



### THRESHOLD

**Standard:** 15mm rebated threshold.

**Optional:** 5mm driveable (DDA compliant).  
12.5mm 564A Aluminium (DDA compliant).



FIRE RESISTANT



FIRE RESISTANT

## FINISHES

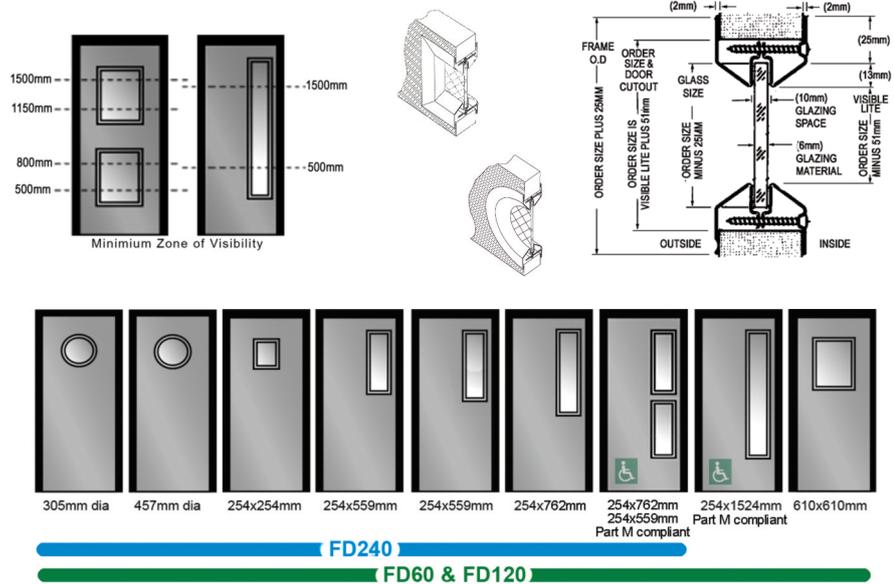
- Standard:** Polyester Powder coated from Standard Colour Range.
- Optional:** Polyester Powder Coating from non-standard colour range.  
 PVC laminate from standard range.  
 Woodgrain PVC laminate.  
 Stainless steel, brushed, polished or patterned.  
 Unfinished for site finishing.

## WALL CONSTRUCTIONS

**Construction Types :** All Robust Fire Doors (FD60, FD120 & FD240) can be used in all forms of Masonry, Concrete and Flexible Stud Wall (cold wall style).  
 When using Timber or Steel Stud Walls the client must ensure they have adequate evidence that the wall can support steel fire doors under fire conditions.  
 120 & 240 rated Stud Wall constructions should have the walls' reveal face protected by a fire resting board to protect the wall construction.

## VISION PANELS

**Guidance Notes:** To comply with Part M of the Building Regulations 2004, doors across circulation routes should have visibility glazing. (Vision panels less than 50% of the total door area are exempt from Part L of the Building Regulations.)



Options:

Permitted Panel Sizes	FD60	FD120	FD240
Maximum Width mm	610	610	235
Maximum Height mm	1854	1854	1631
Maximum Area m <sup>2</sup>	0.4	0.4	0.35
Standard Glazings available	Pyrostem FireDoor60 (Wired or Clear)	8mm Firelite Safety	8mm Firelite #

# Exception : 254mm x 1524mm and 610mm x 610mm exceed maximum area for FD240 and cannot be used at that rating.

For other configurations and sizes please contact the Sales Office.



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## FIRE RESISTANT STEEL DOORS (PART 2)



### LOUVRE PANELS

When required, Robust Fire Resistant Doors are fitted with a Fire Block Louvre System. In the event of fire the intumescent block expands to 80 times its own volume filling the door void preventing the flame spread.

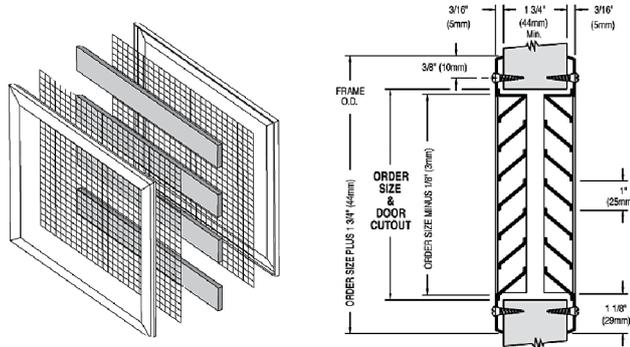
**Construction:** Consists of an FB intumescent block grille only 14mm thick within the door leaf and an FDLS two-part steel louvre set which fixes to both sides of the door and sandwiches the FB intumescent block.

18g Galvanised steel frame louvre blades. (Stainless steel Grade 304 and Grade 316 available to order.)

**Applications:** Designed to be used on fire rated doors fitted to rooms that require ventilation.

A standard louvre will allow ventilation but will also allow the passage of flames and smoke, but a Fire Block Louvre System will maintain the integrity of fire doors and prevent the spread of flames.

Examples are doors to plant rooms, stores, computer rooms, changing facilities and manufacturing areas. In fact, any area that requires ventilation but is protected by a fire rated door.



**Options:**

	FD60	FD120	FD240
<b>Permitted Panel Sizes</b>			
Maximum Width	mm 610	610	235
Maximum Height	mm 1854	1854	1631
Maximum Area	m <sup>2</sup> 0.4	0.4	0.35
<b>Allowed Panels by relevant British Standard</b>			
457 x 457 lower	BS 476 BS EN1634	BS 476 BS EN1634	BS 476 BS EN1634
457 x 457 upper	BS 476	BS 476	BS 476
457 x 457 upper & lower	BS 476	BS 476	
610 x 610 lower	BS 476 BS EN1634	BS 476 BS EN1634	BS EN1634
610 x 610 upper	BS 476	BS 476	
450 x 890	BS 476	BS 476	

### SIDE & OVER PANEL ARRANGEMENTS

**Construction:** Panels can be solid, glazed or louvred.

**Sizes:** See Table overleaf.

**Options:** Hinged panels, flush, glazed or louvred are all available.

Other glazing arrangements can be fitted subject to satisfactory evidence of testing in a steel door.

Please consult the Sales office with specific requirements.





FIRE RESISTANT

Options:

		FD60	FD120	FD240
<b>Solid Permitted Overpanel Sizes (Fixed &amp; Hinged)</b>				
Maximum Width	mm	2700	2700	2700
Maximum Height	mm	2000	2000	2000
Removable Transom		yes	yes	yes
NOTE: Maximum dimensions, and hence maximum allowed area, determined by the glass type, see below				
<b>Permitted Sidepanel Sizes</b>				
Maximum Width	mm	1385	1385	1385
Maximum Height	mm	2860	2860	2860
NOTE: Where the permitted panel size is smaller than the structural opening required, additional panels can be produced to achieve the overall size required.				
<b>Permitted Glazed Overpanel &amp; Sidepanel Sizes</b>				
NOTE: Where the permitted glass size is smaller than the structural opening required, additional panels can be produced to achieve the overall size required.				
<b>6mm Pyran S</b>				
Maximum Width	mm	2875	1878	
Maximum Height	mm	2880	2520	
Maximum Area	m <sup>2</sup>	4.08	3.53	
<b>6mm GWPP</b>				
Maximum Width	mm	1750	1442	
Maximum Height	mm	2500	2060	
Maximum Area	m <sup>2</sup>	2.55	2.88	
<b>8mm Firelite</b>				
Maximum Width	mm	1442	1442	1442
Maximum Height	mm	2060	2060	2060
Maximum Area	m <sup>2</sup>	2.88	2.88	2.88
<b>13mm Pyrostop</b>				
Maximum Width	mm	1685	1685	
Maximum Height	mm	2033	2033	
Maximum Area	m <sup>2</sup>	2.85	2.85	

### REGULATORY REQUIREMENTS FOR FIRE TESTING

The Building Regulations for England and Wales Approved document B ( Fire Safety, Appendix B) requires that all fire doors should have the appropriate performance ....

A. By their performance under test to:

BS 476: Fire test on building materials and structures, Part 22 (Methods for determination of the fire resistance of non-loadbearing elements for a period of minutes).

or

B. ... Part 2 Classification using data from fire resistance tests. They are tested to the relevant European method from the following:

BS EN 1634-1:200, Fire resistance tests for door and shutter assemblies, Part 1 (Fire doors and shutters).

The building regulations further states that: "Any test evidence used to substantiate the fire resistance rating of a door or shutter should be carefully checked to ensure that it adequately demonstrates compliance and is applicable to the complete installed assembly. Small differences in detail (such as glazing apertures,...) may significantly affect the rating".

### VERIFICATION AND CERTIFICATION

All ROBUST Fire Resistant Doors have been tested to both BS 476 and BS EN 1634 and the company provides verification by membership of the internationally renown Warrington Fire Certification Scheme.

Production:



All Robust Fire Resistant Doors are certified under the Warrington Certification CERTIFIRE Scheme. Certificate number: CF618

All Robust steel doors are manufactured strictly in accordance with ISO 9000. The Certifire certificate further verifies that every Robust Fire Resistant Door complies with the evidence of fire resistance attested to that product.

Warrington Certification is fully accredited by UKAS, the certification body (no.1121) for European Attestation of Conformity and is a designated European Technical Approval issuing body.



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## DOUBLE SWING DOORS "DSD"



### CONFIGURATION

Fitted with BTS80 Floor Springs to allow 90° swing either way, without threshold.

Available as Single or Pair of Doors. Choice of options for Glazing.

All double swing doors, made to order.

### DOOR LEAF

*Thickness:* 51mm

*Material:* 1.2mm corrosion resistant Zintec/Aluzinc sheets as standard, wide variety of colours and finishes available. Also Stainless Steel.

*Infill:* Self supporting resin-impregnated honeycomb core as standard.

*Construction:* Doorblade manufactured from two 1.2mm sheets lockformed together, by bonding two steel skins around a rigid core, using a no-weld construction.

### DOOR FRAME

*Construction:* Folded from 1.6mm Zintec/Aluzinc.  
Screw and tab construction with 4no. adjustable fixing feet per jamb, variable sub-frame supplied as standard to accommodate site tolerance of -0/+30mm.



DOUBLE SWING DOORS



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# DOUBLE SWING DOORS

## FINISHES

- Standard:** Polyester Powder coated from Standard Colour Range.
- Optional:** Polyester Powder Coating from non-standard colour range.  
PVC laminate from standard range.  
Woodgrain PVC laminate.  
Stainless steel, brushed, polished or patterned.  
Unfinished for site finishing.

## SIZES

**Size:** Doors are custom manufactured in 10mm increments for single openings 690mm to 1390mm and double openings 1290mm to 2600mm, at heights up to 2900mm.

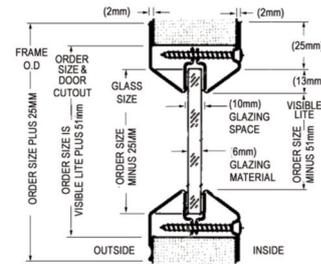
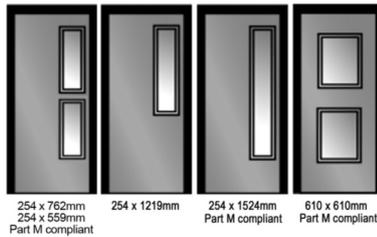
Contact the Sales office for special configurations and finishes.

## VISION PANELS

**Guidance Notes:** To comply with Part M of the Building Regulations 2004 doors across circulation routes should have visibility glazing. (Vision panels less than 50% of the total door area are exempt from Part L of the Building Regulations.)

**Construction:** Welded construction from 1mm cold rolled steel, screwed together from one side.

**Options :** Standard glazing is Pyrostem Wired Safety E Glass.  
Alternative options include  
Custom sizes and glass are available to customer requirements.



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# SD2 SECURITY DOOR

Fully **CE** compliant.  
 Tested to EN14351-1 product compliant standard

*Robust 'Secure by Design' Doors are designed to protect low to medium risk properties from determined opportunist attempts at forced entry using a variety of hand tools. They are particularly suitable as apartment doors for residential and social housing. Security with aesthetics.*

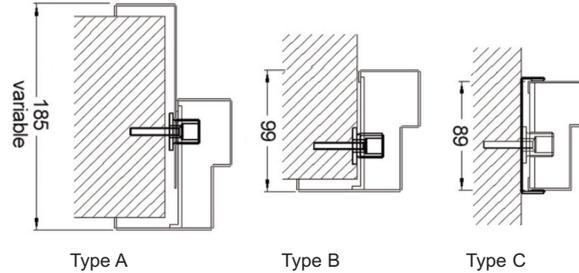
## DOOR LEAF

- Thickness:** 48mm
- Material:** 1.5mm corrosion resistant Zintec/Aluzinc sheets as standard, wide variety of colours and finishes available. Plus 1.2mm additional internal plate for 'means of escape' doors.
- Infill:** Filled with mineral wool and integral steel stiffeners.
- Construction:** Doorblade manufactured from two 1.5mm sheets lockformed together, by bonding two steel skins around a rigid core. A total steel armour thickness of 3 - 4mm.
- Astragal:** Blade fitted with an anti-jemmy astragal.

## DOOR FRAME

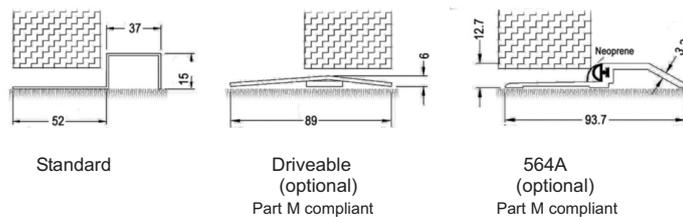
- Construction:** Folded and welded from 1.6mm Zintec/Aluzinc.  
 Fully welded, variable sub-frame supplied as standard to accommodate site tolerance of -0/+30mm.  
 The sub-frame providing additional protection to the fixings against jemmys.  
 The frame is fitted with 4no. specially modified Class 13 stainless steel hinges with 4no. security dog bolts for security.

**Profile:**



## THRESHOLD

- Standard:** 15mm rebated threshold.
- Optional:** 5mm driveable (DDA compliant).  
 12.5mm 564A Aluminium (DDA compliant).



## FINISHES

- Standard:** Polyester Powder coated from Standard Colour Range.
- Optional:** Polyester Powder Coating from non-standard colour range.  
 Unfinished for site finishing.

## THERMAL 'U' VALUES

With in-fill as detailed a thermal value of 2.6 w/m<sup>2</sup>k is obtainable.  
 See Thermal datasheet for full details, [\(click here\)](#)

## SIZES

- Size:** Doors are custom manufactured in 10mm increments for single openings 690mm to 1200mm and double openings 1290mm to 2500mm, at heights up to 2800mm.  
 Contact the Sales office for special configurations and finishes.



SECURITY





## SD2 SECURITY DOOR



### SECURE LOCKING

*Locking:*

#### **Non Fire Escape**

Door is required to be fitted with a minimum of two high security locks.  
 Securefast C EN grade 7 security Sashlock, (SA 222 50SS R/7) C/W euro double cylinder and security escutcheon fitted to the centre door position.  
 Securefast C EN grade 7 security Deadlock, (SA21250 SS R /7) C/W euro double cylinder and security escutcheon fitted to the lower quarter of the door leaf.  
 Each door supplied with high security cylinders, tested to BS EN 1303 security Grade 6, Pattern protected to make key duplication difficult, anti-drill protected and keyed alike per door set as standard.  
 Please note to achieve the security rating the door should be fitted with 2No Security Deadlocks to offer the appropriate security rating when the building is unoccupied.



#### **Fire Escape Doors**

Alternatively the doors can be fitted with 3 point heavy duty panic escape hardware to offer means of escape, which is accepted by the Secure by Design scheme.  
 Fire Escape Doors are fitted with a 1.2mm internal skin to resist drill attack.

**Note:** Taller doors may require a third, additional, lock.

### APPLICATIONS

*Duty:*

Light Commercial and perimeter security.  
 Protection from a determined attack, with some preparation and a number of tools where the attacker is willing to make some, but not prolonged, noise.

**Note:** All duty recommendations assume the doors are used in conjunction with other comparable levels of security at windows, etc.

The SD2 door can offer up to 240min. fire rating if fitted with appropriate ironmongery.

### TESTING & CERTIFICATION

*Tests:*

These doors achieve a pass to the following:  
 PAS24 and STS202 (BR2). Both of which are accepted by Secure by Design.  
 BS EN 1627 level 2.

Tests involves a determined attack over a period of 15mins. using tools including screwdriver, 300mm. lever, and hammer. (see 'Practical Attack Element of Test for full details')

*When fitted with Vision Panels the door can only be offered to PAS24 rating.*

The SD2 holds Secure by Design certification.

### DOUBLE DOORS

Double doors to be fitted with flush bolts, exidor towerbolts or double panic bolts.



SECURITY



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# SD3 SECURITY DOOR

Fully **CE** compliant.  
Tested to EN14351-1 product compliant standard

*Robust SD3 Security Doors are designed to protect medium risk residential or commercial properties from attempts at forced entry, with little regard for noise, using heavy hand tools. Security with aesthetics.*



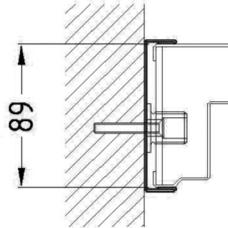
## DOOR LEAF

- Thickness:** 55mm
- Material:** 2mm corrosion resistant Zintec/Aluzinc sheets as standard, wide variety of colours and finishes available.
- Infill:** Filled with mineral wool and integral steel stiffeners.
- Construction:** Doorblade manufactured from two 2mm sheets lockformed together, by bonding two two steel skins around a rigid core. A total steel armour thickness of 4mm.
- Astragal:** Blade fitted with a flush anti-jemmy astragal.

## DOOR FRAME

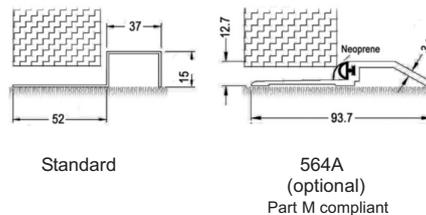
- Construction:** Folded and welded from 2mm Zintec/Aluzinc. Fully welded, variable sub-frame supplied as standard to accommodate site tolerance of -0/+30mm. Complete with Anti-Crush plate. The sub-frame providing additional protection to the fixings against jemmys. The frame is fitted with four Class 13 stainless steel dog bolt hinges recessed and specially modified to prevent pin extraction. Plus 2no. solid ball round dog bolts to increase resistance to prising. Infilled with mineral wool.

**Profile:**



## THRESHOLD

- Standard:** 15mm rebated threshold.
- Optional:** 12.5mm 564A Aluminium (DDA compliant).



## FINISHES

- Standard:** Polyester Powder coated from Standard Colour Range.
- Optional:** Polyester Powder Coating from non-standard colour range. Unfinished for site finishing.

## SIZES

- Size:** Doors are custom manufactured in 10mm increments for single openings 690mm to 1200mm and double openings 1290mm to 2500mm, at heights up to 2800mm. Contact the Sales office for special configurations and finishes.

SECURITY





# SD3 SECURITY DOOR



SECURITY

## SECURE LOCKING

**Locking:** High Security triple point high security sashlock, Securefast, with High Security cylinders and anti-jemmy escutcheon protecting against snapping attack. Lock is anti-drill and pattern protected to reduce the risk of key copying. Doors are fitted with Exidor tower bolts.

Alternatively doors can be fitted with with three point heavy duty Panic Hardware for Fire Escape but must be fitted with a Locking Box to prevent Drill Attack.

## THERMAL 'U' VALUES

With in-fill as detailed a thermal value of  $2.6 \text{ w/m}^2\text{k}$  is obtainable.  
*See Thermal datasheet for full details, (click here)*

## ACOUSTIC VALUES

With in-fill as detailed an acoustic value of  $2.3 \text{ w/m}^2\text{k}$  is obtainable.  
*See Acoustic datasheet for full details, (Click here)*

## APPLICATIONS

**Duty:** Medium risk residential and commercial properties which may be obscured from view.

Protection from a deliberate forced entry of a well protected property using a wide variety of tools with little regard for noise.

Note: All duty recommendations assume the doors are used in conjunction with other comparable levels of security at windows etc.

The SD3 door can offer 240min. fire rating if fitted with appropriate ironmongery.

## TESTING

**Tests:** These doors achieve a pass to the following;  
STS202 (BR3) which is accepted by Secure by Design. BS1627 level 3.

Tests involves a determined attack over a period of 20mins. using tools including hand hammer, hand drill, and crowbar. (see 'Practical Attack Element of Test for full details')

Locks anti-drill tested to BS EN 1303 Security grade 6.



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Tel: +44 (0)1538 752600 • Fax: +44 (0)1538 752604 • Email: sales@robust-uk.com

*Individual specifications may vary as Robust conduct a policy of continuous product development.*



# SD4 SECURITY DOOR

Fully CE compliant.

Tested to EN14351-1 product compliant standard

*Robust SD4 Security Doors are designed to protect medium to high risk properties from experienced attempts at forced entry, regardless of noise, using heavy hand and battery tools or explosives. Security with aesthetics. Security with aesthetics.*



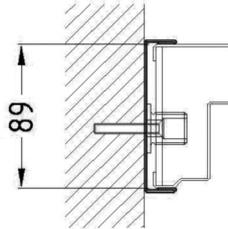
## DOOR LEAF

- Thickness:** 50mm
- Material:** 1.5mm corrosion resistant Zintec/Aluzinc sheets as standard, wide variety of colours and finishes are available.
- Infill:** Solid timber cored with internal stainless steel anti-attack skin.
- Construction:** Doorblade manufactured from two 1.5mm sheets lockformed together, by bonding two steel skins around a rigid core. Additionally fitted with a 1.5mm steel sheet to the internal face of outer skin. A total steel armour thickness of 4.5mm. Fitted with integral lock box.
- Astragal:** Blade fitted with an anti-jemmy astragal.

## DOOR FRAME

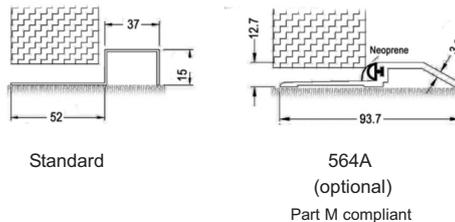
- Construction:** Folded and welded from 2mm Zintec/Aluzinc. Specially modified, variable sub-frame supplied as standard to accommodate site tolerance of -0/+30mm. The sub-frame providing additional protection to the fixings against jemmys. Fitted with stainless steel dog bolted continuous hinge for additional security.

**Profile:**



## THRESHOLD

- Standard:** 15mm rebated threshold.
- Optional:** 12.5mm 564A Aluminium (DDA compl)



## FINISHES

- Standard:** Polyester Powder coated from Standard Colour Range.
- Optional:** Polyester Powder Coating from non-standard colour range. Unfinished for site finishing.

## SIZES

- Size:** Doors are custom manufactured in 10mm increments for single openings 690mm to 1390mm and double openings 1290mm to 2600mm, at heights up to 2900mm. Contact the Sales office for special configurations and finishes.

SECURITY





# SD4 SECURITY DOOR



SECURITY

## SECURE LOCKING

**Locking:** A centre High Security WAAA1100 Sashlock combined with two similar Deadlocks in the upper and lower quarters of the door. All locks fitted with anti-jemmy escutcheon and welded shroud. Locks are anti-drill and pattern protected to reduce risk of key copying. Mico and Surelock can also be used. Doors are fitted with Exidor tower bolts.

Alternatively high security multi-point heavy duty panic hardware for fire escapes.

## THERMAL 'U' VALUES

With in-fill as detailed a thermal value of 2.9 w/m<sup>2</sup>k is obtainable.  
See *Thermal datasheet for full details, (click here)*

## ACOUSTIC VALUES

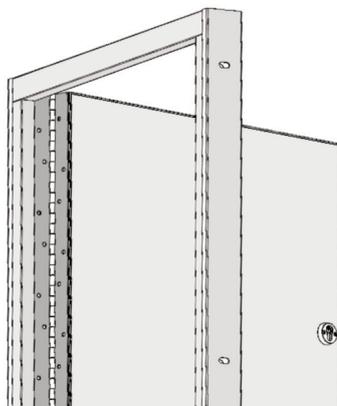
With in-fill as detailed an acoustic value of 23 w/m<sup>2</sup>k is obtainable.  
See *Acoustic datasheet for full details, (Click here)*

## APPLICATIONS

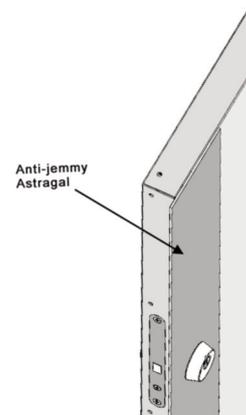
**Duty:** Heavy duty and vulnerable properties, probably with a prior record of attempts at forced entry.  
Protection from experienced attempts at forced entry of commercial properties with no regard for noise.  
Further the door is suitable for protection against attempted entry by explosive blasts.  
Note: All duty recommendations assume the doors are used in conjunction with other comparable levels of security at windows, etc.

## TESTING

**Tests: SECURITY** Tested to BS 1627 level 4  
The test involves a determined attack over a period of 30mins. using a selection of hand and battery tools including club hammer, cordless drill, cold chisel and axe. (see 'Practical Attack Element of Test for full details'.)  
Locks Anti-drill tested to BS EN 1303 Security grade 6.  
**BLAST** SD4 doors have been tested and passed EXR2 of BS EN 13124-2, Explosion Resistance standard, with explosive blasts using plastic explosives.



SD4 Full Height Continuous Hinge



SD4 Anti-Jemmy Astragal



ROBUST UK LTD Brookhouse Way, Brookhouse Industrial Estate, Cheadle, Staffordshire, ST10 1SR  
Tel: +44 (0)1538 752600 • Fax: +44 (0)1538 752604 • Email: sales@robust-uk.com

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## SD5 SECURITY & BLAST DOOR

*Robust SD5 Security Doors are designed to protect extremely high value storage properties from professional attempts at forced entry, regardless of noise, using heavy hand and power tools or explosives. Security with aesthetics.*



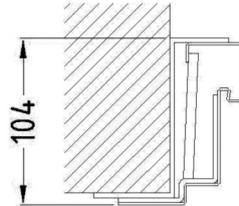
### DOOR LEAF

- Thickness:** 62mm (xxkg/m<sup>3</sup> blade only)
- Material:** 3mm and 4mm sheets of mild steel as standard, wide variety of colours.
- Infill:** Infilled with mineral wool and integral steel strengtheners.
- Construction:** Doorblade manufactured from heavily welded mild steel and constructed with a infilled inner door which is faced with 4mm steel externally and 3mm internally. A total steel armour thickness of 9mm.
- Astragal:** Blade fitted with an anti-jemmy astragal.

### DOOR FRAME

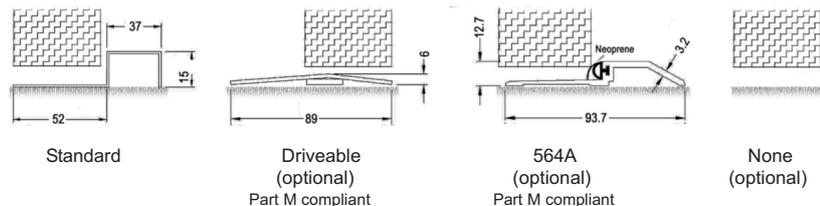
- Construction:** High security two part frame system allows for highest security. The first part is fitted to the structure with the second being welded on site to protect the fixing points. Fitted with heavy duty drop-on hinges which only allow the door to be removed once the blade has passed 90 degrees. Large diameter dog bolts are fitted to the frame to prevent the door from being removed if the hinges are attacked.

**Profile:**



### THRESHOLD

- Standard:** 15mm rebated threshold.
- Optional:** 5mm driveable (DDA compliant).  
12.5mm 564A Aluminium (DDA compliant).



### FINISHES

- Standard:** Because, for strength and attack resistance, the door construction is heavily welded it is not possible to achieve our normal high aesthetic finish. The doors can be completed with a powdercoat finish to any standard BS or RAL finish.
- Optional:** Contact the Sales office for special finishes.

### SIZES

- Size:** Doors are custom manufactured in 10mm increments for single openings 690mm to 1390mm and double openings 1290mm to 2600mm, at heights up to 2900mm.
- Contact the Sales office for special configurations and finishes.

SECURITY





# SD5 SECURITY & BLAST DOOR



## SECURE LOCKING

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*Locking:* High Security multipoint deadlock.  
Alternatively high security multi-point panic hardware for fire escapes.

## APPLICATIONS

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*Duty:* Heavy duty applications such as strong-rooms, cash offices and drug stores.  
Protection from professional means of attempting forced entry into high value storage areas after penetrating the building facade.  
Further the door is suitable for protection against attempted entry by explosives.  
Note: All duty recommendations assume the doors are used in conjunction with other comparable levels of security at windows, etc.

## TESTING

---

*Tests:* Tested to the highest level of the Swedish Burglary Test SS 81 73 45  
The test involves a determined attack over a period of 30mins. using a selection of hand and power tools including sledge hammer, 500W drill, power saws and angle grinder. (see 'Practical Attack Element of Test for full details'.)  
SD4 doors have been tested and passed EXR 3 of BS EN 13124-2, the Explosion Resistance standard, with explosive blasts using plastic explosives.

SECURITY



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Tel: +44 (0)1538 752600 • Fax: +44 (0)1538 752604 • Email: sales@robust-uk.com

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## AC35 ACOUSTIC DOOR

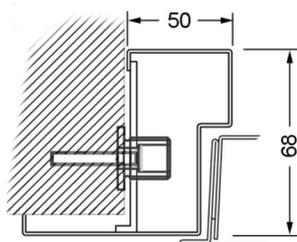
Robust Doors can offer a level of acoustic attenuation from 22 to 54dB by varying the infill of the doorblade and frames. The higher levels of acoustic performance are achieved with custom manufactured doorsets using four-sided frames and acoustic seals.

### DOOR LEAF

- Thickness:** 56mm (27kg/m<sup>2</sup> blade only).
- Material:** 1.2mm corrosion resistant Zintec/Aluzinc sheets as standard, wide variety of colours and finishes available. Also Stainless Steel.
- Infill:** A mineral wool core.
- Construction:** Doorblade manufactured from two 1.2mm sheets lockformed together, by bonding two steel skins around a rigid core, using a no-weld construction.

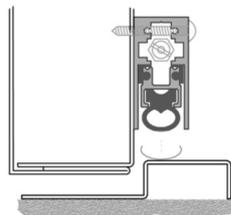
### DOOR FRAME

- Construction:** Folded from 1.6mm Zintec/Aluzinc.  
Screw and tab construction with 4no. adjustable fixing feet per jamb  
The frame is fitted with 3no. Class 13 stainless steel hinges with 2no. security dog bolts. Standard Type B.
- Profile:**



### THRESHOLD

- Standard:** Integral with frame.
- Profile:**



### FINISHES

- Standard:** Polyester Powder coated from Standard Colour Range.
- Optional:** Polyester Powder Coating from non-standard colour range.  
PVC laminate from standard range.  
Woodgrain PVC laminate.  
Stainless steel, brushed, polished or patterned.  
Unfinished for site finishing.

### SIZES

- Size:** Doors are custom manufactured in 10mm increments for single openings 690mm to 1200mm and double openings 1290mm to 2400mm, at heights up to 2700mm.  
Contact the Sales office for special configurations and finishes.



ACOUSTIC





# AC35 ACOUSTIC DOOR



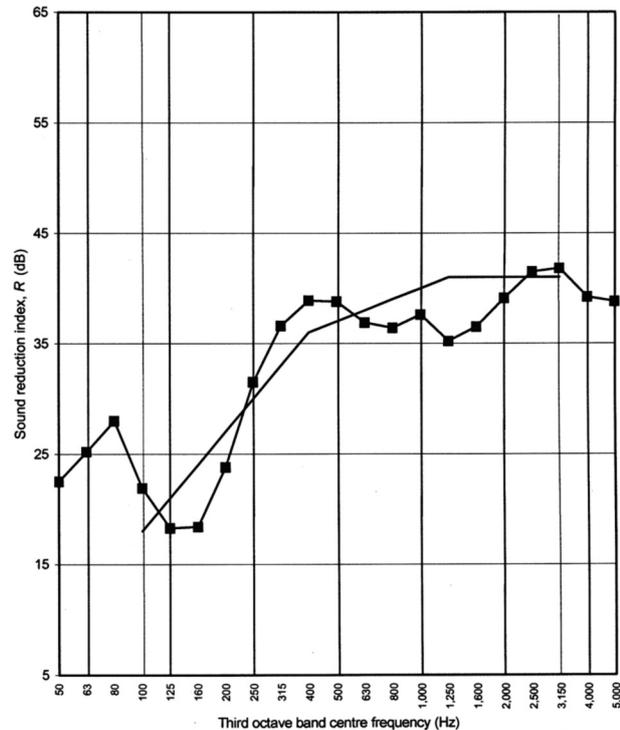
## ACOUSTIC PERFORMANCE

Rating: According to BS EN ISO 717-1:1997

$R_w(C;C_{tr}) = 45 (-3;-9)$  dB

Frequency (Hz)	R One-third octave (dB)
50	22.5
63	25.2
80	28.0
100	21.9
125	18.3
160	18.4
200	23.8
250	31.5
315	36.6
400	38.9
500	38.8
630	36.9
800	36.4
1,000	37.6
1,250	35.2
1,600	36.5
2,000	39.1
2,500	41.5
3,150	41.8
4,000	39.2
5,000	38.8

x R adjusted for filler wall



### Notes:

1. The above performances were tested by the BRE on 7th March 2006, test report 228403.
2. Tested to BS EN ISO 140-3: 1995
3. Single number quantities calculated in accordance with BS EN ISO 717-1:1997
4. The tests were undertaken on doors up to 2100mm in height only. Robust cannot certify performance above that.

## INSTALLATION

*Acoustic Doors* Due to the weight and reduced tolerances on doors above 45dB it is necessary for Robust to install these doors in order to maintain the tested performance levels.

ACOUSTIC



ROBUST UK LTD Brookhouse Way, Brookhouse Industrial Estate, Cheadle, Staffordshire, ST10 1SR  
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## AC45 ACOUSTIC DOOR

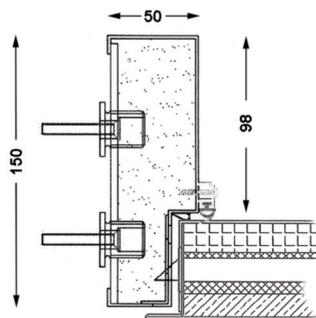
Robust Doors can offer a level of acoustic attenuation from 22 to 54dB by varying the infill of the doorblade and frames. The higher levels of acoustic performance are achieved with custom manufactured doorsets using four-sided frames and acoustic seals.

### DOOR LEAF

- Thickness:** 52mm (45kg/m<sup>2</sup> leaf only).
- Material:** 1.2mm corrosion resistant Zintec/Aluzinc sheets as standard, wide variety of colours and finishes available. Also Stainless Steel.
- Infill:** A combination of layers of plasterboard, mineral-fibre and rubberised sheet.
- Construction:** Doorblade manufactured from two 1.2mm sheets lockformed together, by bonding two steel skins around a rigid core, using a no-weld construction.

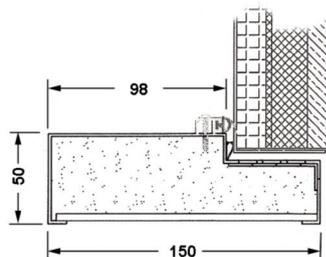
### DOOR FRAME

- Construction:** Folded from 1.6mm Zintec/Aluzinc and filled with plaster. Screw and tab construction with 4no. adjustable fixing feet per jamb. Acoustic doors are manufactured to suit the structural opening and use a four-sided frame and acoustic seals. To prevent creating a trip hazard a 50mm channel is cut out on site by the contractor for the bottom of the frame. The frame is fitted with 3no. Class 13 stainless steel hinges with 2no. security dog bolts.
- Profile:**



### THRESHOLD

- Standard:** Integral with frame.
- Profile:**



### FINISHES

- Standard:** Polyester Powder coated from Standard Colour Range.
- Optional:** Polyester Powder Coating from non-standard colour range.  
PVC laminate from standard range.  
Woodgrain PVC laminate.  
Stainless steel, brushed, polished or patterned.  
Unfinished for site finishing.

### SIZES

- Size:** Doors are custom manufactured in 10mm increments for single openings 690mm to 1200mm and double openings 1290mm to 2400mm, at heights up to 2700mm.
- Contact the Sales office for special configurations and finishes.





# AC45 ACOUSTIC DOOR

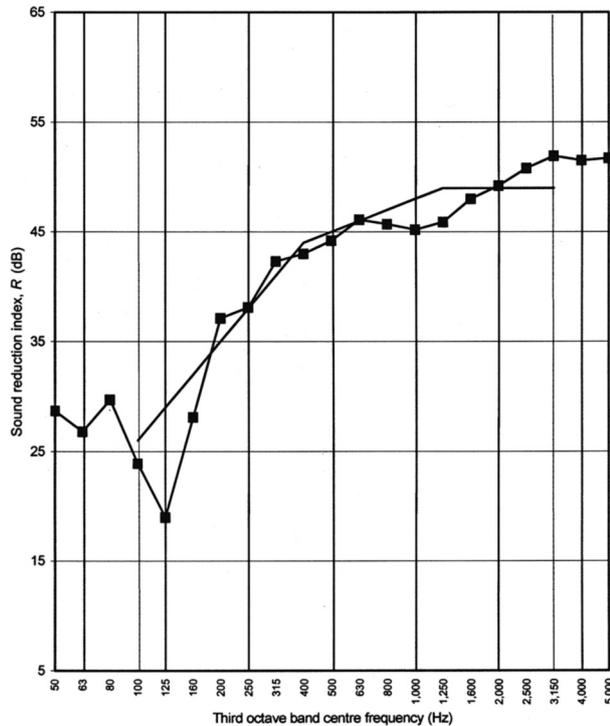


## ACOUSTIC PERFORMANCE

Rating: According to BS EN ISO 717-1:1997

$$R_w(C;C_{tr}) = 45 (-3;-9) \text{ dB}$$

Frequency (Hz)	R One-third octave (dB)
50	28.7
63	26.8
80	29.7
100	23.9
125	19.0
160	28.1
200	37.1
250	38.1
315	42.3
400	43.0
500	44.2
630	46.1
800	45.7
1,000	45.2
1,250	45.9
1,600	48.0
2,000	49.2
2,500	50.8
3,150	51.9
4,000	51.5
5,000	51.7



x R adjusted for filler wall  
o R within 6 dB of filler wall

### Notes:

1. The above performances were tested by the BRE on 7th March 2006, test report 228403.
2. Tested to BS EN ISO 140-3: 1995
3. Single number quantities calculated in accordance with BS EN ISO 717-1:1997
4. The tests were undertaken on doors up to 2100mm in height only. Robust cannot certify performance above that.

## INSTALLATION

*Acoustic Doors* Due to the weight and reduced tolerances on doors above 45dB it is necessary for Robust to install these doors in order to maintain the tested performance levels.

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ROBUST UK LTD Brookhouse Way, Brookhouse Industrial Estate, Cheadle, Staffordshire, ST10 1SR  
Tel: +44 (0)1538 752600 • Fax: +44 (0)1538 752604 • Email: sales@robust-uk.com

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## AC50 ACOUSTIC DOOR

Robust Doors can offer a level of acoustic attenuation from 22 to 54dB by varying the infill of the doorblade and frames. The higher levels of acoustic performance are achieved with custom manufactured doorsets using four-sided frames and acoustic seals.

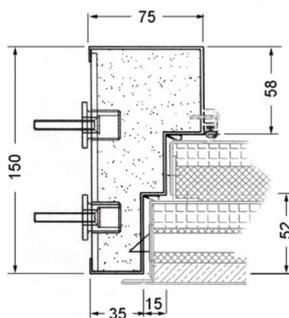
### DOOR LEAF

- Thickness:** 100mm (61kg/m<sup>3</sup> blade only).
- Material:** 1.2mm corrosion resistant Zintec/Aluzinc sheets as standard, wide variety of colours and finishes available. Also Stainless Steel.
- Infill:** A combination of layers of plasterboard, mineral-fibre and rubberised sheet.
- Construction:** Doorblade manufactured from two 1.2mm sheets lockformed together, by bonding two steel skins around a rigid core, using a no-weld construction.

### DOOR FRAME

- Construction:** Folded from 1.6mm Zintec/Aluzinc and filled with plaster. Screw and tab construction with 4no. adjustable fixing feet per jamb. Acoustic doors are manufactured to suit the structural opening and use a four-sided frame and acoustic seals. To prevent creating a trip hazard a 50mm channel is cut out on site by the contractor for the bottom of the frame. The frame is fitted with 3no. Class 13 stainless steel hinges with 2no. security dog bolts.

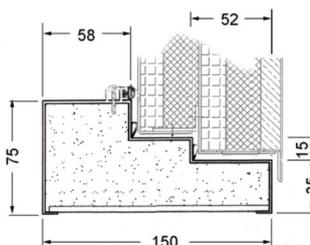
**Profile:**



### THRESHOLD

- Standard:** Integral with frame.

**Profile:**



### FINISHES

- Standard:** Polyester Powder coated from Standard Colour Range.
- Optional:** Polyester Powder Coating from non-standard colour range.  
PVC laminate from standard range.  
Woodgrain PVC laminate.  
Stainless steel, brushed, polished or patterned.  
Unfinished for site finishing.

### SIZES

- Size:** Doors are custom manufactured in 10mm increments for single openings 690mm to 1000mm and double openings 1290mm to 2000mm, at heights up to 2500mm. Contact the Sales office for special configurations and finishes.



ACOUSTIC





# AC50 ACOUSTIC DOOR

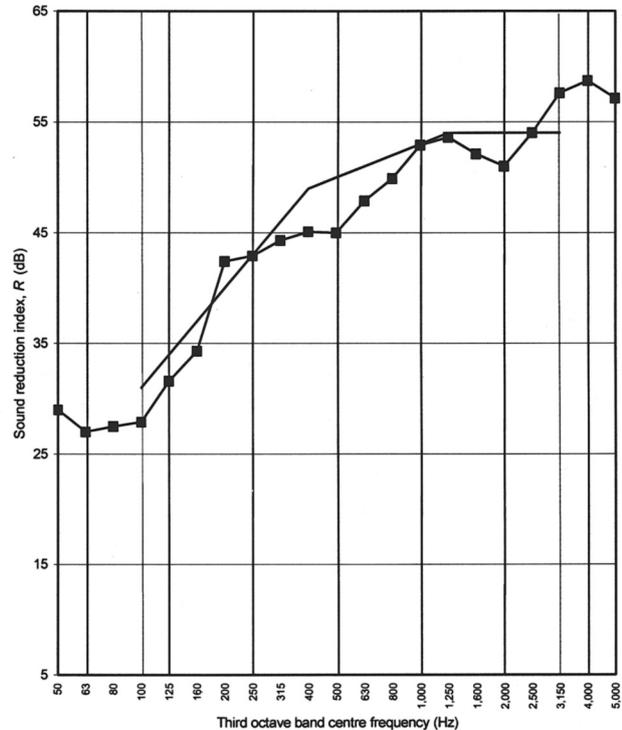
## ACOUSTIC PERFORMANCE

Rating: According to BS EN ISO 717-1:1997

$$R_w(C;C_{tr}) = 50 (-2;-6) \text{ dB}$$



Frequency (Hz)	R One-third octave (dB)
50	29.0
63	27.0
80	27.5
100	27.9
125	31.6
160	34.3
200	42.4
250	42.9
315	44.3
400	45.1
500	45.0
630	47.9
800	49.9
1,000	52.9
1,250	53.6
1,600	52.1
2,000	51.0
2,500	54.0
3,150	57.6
4,000	58.7
5,000	57.1



x R adjusted for filler wall  
o R within 6 dB of filler wall

### Notes:

1. The above performances were tested by the BRE on 7th March 2006, test report 228403.
2. Tested to BS EN ISO 140-3: 1995
3. Single number quantities calculated in accordance with BS EN ISO 717-1:1997
4. The tests were undertaken on doors up to 2100mm in height only. Robust cannot certify performance above that.

## INSTALLATION

*Acoustic Doors* Due to the weight and reduced tolerances on doors above 45dB it is necessary for Robust to install these doors in order to maintain the tested performance levels.

ACOUSTIC



ROBUST UK LTD Brookhouse Way, Brookhouse Industrial Estate, Cheadle, Staffordshire, ST10 1SR  
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# FULLY LOUVRED DOOR

Fully **CE** compliant.

Tested to EN14351-1 product compliant standard



## DOOR LEAF

**Thickness:** 48mm

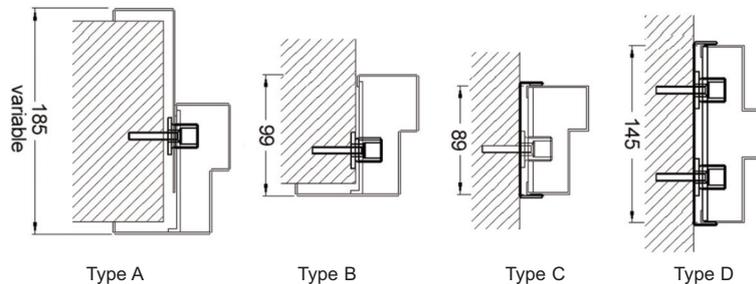
**Material:** 2mm corrosion resistant Zintec/Aluzinc as standard, wide variety of colours and finishes available. Also Stainless Steel.

**Construction:** Doorblade manufactured from 2mm steel. The louvre blades are inclined at 45° and mounted at 50mm centres within a 50mm deep angle frame, which is mounted on a box section sub-frame for rigidity. A galvanised bird & vermin mesh can be supplied.

## DOOR FRAME

**Construction:** Folded from 1.6mm Zintec/Aluzinc.  
Screw and tab construction with 4no. adjustable fixing feet per jamb, variable sub-frame supplied as standard to accommodate site tolerance of -0/+30mm.  
The frame is fitted with 3no. Class 13 stainless steel hinges with 2no. security dog bolts.

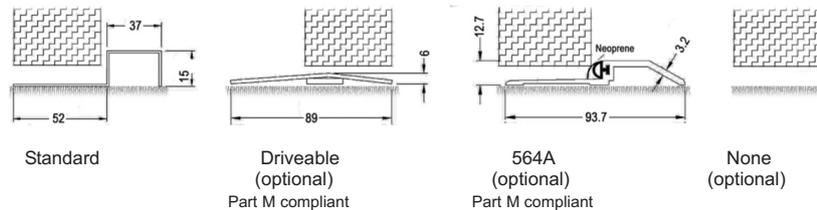
**Profile:**



## THRESHOLD

**Standard:** 15mm rebated threshold.

**Optional:** 5mm driveable (DDA compliant).  
12.5mm 564A Aluminium (DDA compliant).



## FINISHES

**Standard:** Polyester Powder coated from Standard Colour Range.

**Optional:** Polyester Powder Coating from non-standard colour range.  
PVC laminate from standard range.  
Woodgrain PVC laminate.  
Stainless steel, brushed, polished or patterned.  
Unfinished for site finishing.

## SIZES

**Size:** Doors are custom manufactured in 10mm increments for single openings 690mm to 1100mm and double openings 1290mm to 2300mm, at heights up to 2500mm. Over these sizes fully louvred performance can be achieved by custom design.  
Contact the Sales office for special configurations and finishes.

FULLY LOUVRED





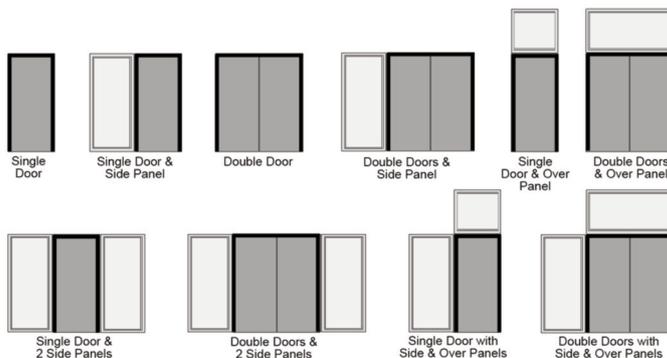
## FULLY LOUVRED DOOR



FULLY LOUVRED

### PANEL ARRANGEMENTS

- Construction:** Side and over panels can be supplied.
- Sizes:** Side panels are available up to 1100mm wide x 2500mm high.  
Over panels are available up to 2500mm (single door) or 2200mm (double door).
- Options:** Hinged or removeable panels are available. Also combinations to create enclosures.  
Please consult the Sales office with specific requirements.



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## TUFF-VENT DOORS

The Robust "TUFF-VENT" doorset offers the maximum free airflow whilst maintaining security. Side panels and overpanels can be manufactured to make up large openings where large doors may be impractical.



Front Detail



Rear Detail

### DOOR LEAF

**Production Sizes:** "TUFF\_VENT" doors are manufactured in 1000 x 2100mm and 2000 x 2100mm sizes.

**Thickness:** A standard 2mm steel louvre vane is used throughout, welded at every junction.

**Material:** 2mm galvanised steel sections as standard.

**Construction:** Constructed using hollow metal standardised sections.

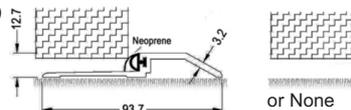
### DOOR FRAME

**Construction:** Fully welded construction with 4no. adjustable fixing feet per jamb, variable sub-frame supplied as standard to accommodate site tolerance of -0/+30mm. The frame is fitted with 4no. surface mounted adjustable hinges, painted to match door.

**Opening:** Single Swing Latched as standard. Other combinations available.

### THRESHOLD

**Standard:** 12.5mm 564A Aluminium (DDA compliant)



### FINISHES

**Standard:** Polyester Powder Coating from standard colour range.

### FREE AIRFLOW

(based on the area of louvres only this equates to 72%). Calculated on a 1000 x 2100 over frame door a free area of 55% is achieved.

### OPTIONS

The "Tuff-Vent" grid is also available as a panel to fit FDA doors in two standard sizes 457 x 457mm and 457 x 1524 sizes giving approximately 0.15m<sup>2</sup> and 0.5m<sup>2</sup>

TUFF-VENT



ROBUST UK LTD Brookhouse Way, Brookhouse Industrial Estate, Cheadle, Staffordshire, ST10 1SR  
Tel: +44 (0)1538 752600 • Fax: +44 (0)1538 752604 • Email: sales@robust-uk.com





## COMMUNAL ENTRANCE DOORS

*ROBUST Communal Entrance Doors are designed to provide a secure, attractive and dependable entrance to all Communal buildings. All units are individually manufactured to the needs of the project and can incorporate all forms of locking systems.*



Ladder style



Propellers style



Text style



Waves style

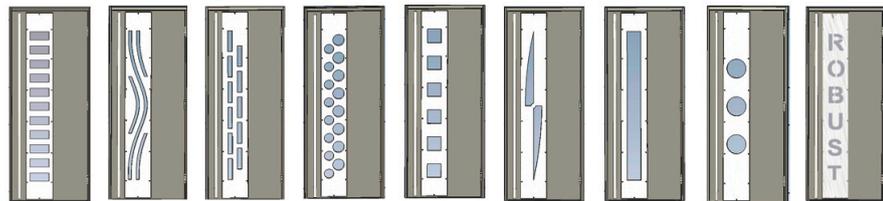


Vertical Notes Left style



Vertical Notes Right style

### Some Alternative styles



LADDER

WAVES

VERTICAL NOTES

CIRCLES

SQUARES

PROPELLERS

LONG SLOT

LARGE CIRCLES

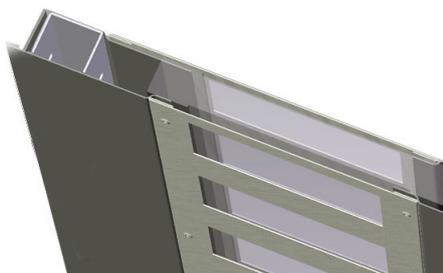
TEXT

### VISION PANELS

**Construction:** Double glazed unit constructed of two leaves each of 11.5mm Anti-Bandit glass covered by 2mm stainless steel panel.

The panel on the interior side is extended to cover the handle area.

**Options:** A variety of aperture shapes, as illustrated, are available. Alternatives could be supplied if required.





## DOOR LEAF

- Thickness:** 48mm
- Material:** 1.5mm corrosion resistant steel as standard for additional security, with a wide variety of colours and finishes available.  
2.0mm Stainless steel vision panel.
- Infill:** Fitted with a solid timber core for Anti-Vandal protection.
- Construction:** Doorblade manufactured from two 1.5mm sheets welded together.  
Flush Astragal as standard on all doors.  
All fixings used are security type.



## DOOR FRAME

- Construction:** Folded from 1.6mm Zintec/Aluzinc.  
Screw and tab construction with 4no. adjustable fixing feet per jamb, variable sub-frame supplied as standard to accommodate site tolerance of -0/+30mm.  
The frame is fitted with 4no. dogbolt stainless steel hinges as standard.

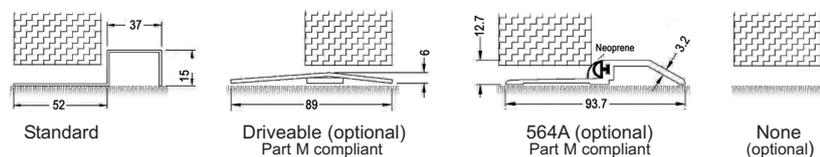


## PANEL ARRANGEMENTS

- Construction:** Panels can be solid, glazed or louvred with solid timber core as required.
- Sizes:** Standard side panels are available up to 1340mm wide x 2900mm high.  
Standard over panels are available up to 1340mm x 2900mm (single door) or 1340mm x 2600mm (double door).
- Options:** Hinged panels. Removeable, flush, glazed or louvred are all available.  
Please consult the Sales office with specific requirements.

## THRESHOLD

- Standard:** 15mm rebated threshold.
- Optional:** 5mm driveable (DDA compliant).  
12.5mm 564A Aluminium (DDA compliant).



## FINISHES

- Standard:** Heavy duty low maintenance polyester powder coated finish.
- Optional:** Contact the Sales office for special finishes.

## SECURE LOCKING

- Locking:** Fully concealed Double Mortice mounted Deadlocks (Magneto DNG902), with 275kg holding power, and a Dormer HT596 concealed Door Closer.
- Optional:** High security "Securefast" Deadlock with anti-jemmy escutcheon.  
Client can supply/fix Access Controls or Robust can offer options.



## SIZES

- Size:** Doors are custom manufactured in 10mm increments for single openings 690mm to 1390mm and double openings 1290mm to 2600mm, at heights up to 2900mm.



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Individual specifications may vary as Robust conduct a policy of continuous product development.

ENTRANCE DOORS





## WOOD LAMINATED DOORS



Nordik Oak

Ash

Mahogany



Teak

Cherry

Virgin White



Golden Oak

Magic Oak



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WOOD LAMINATE