



The company you can count on

Abacus Shutters Limited

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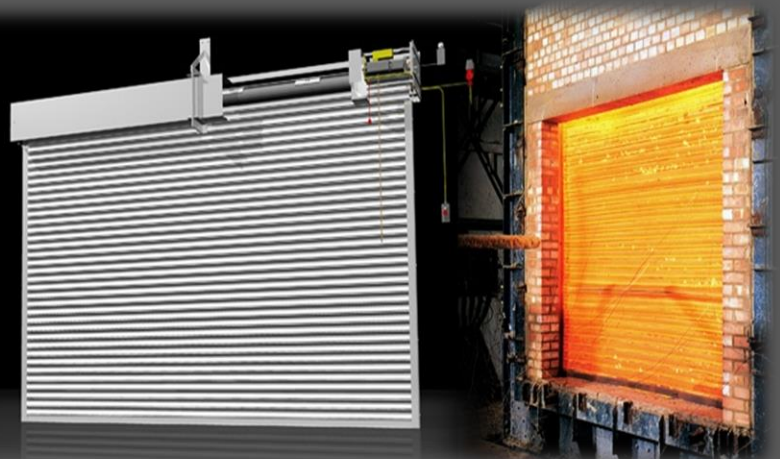
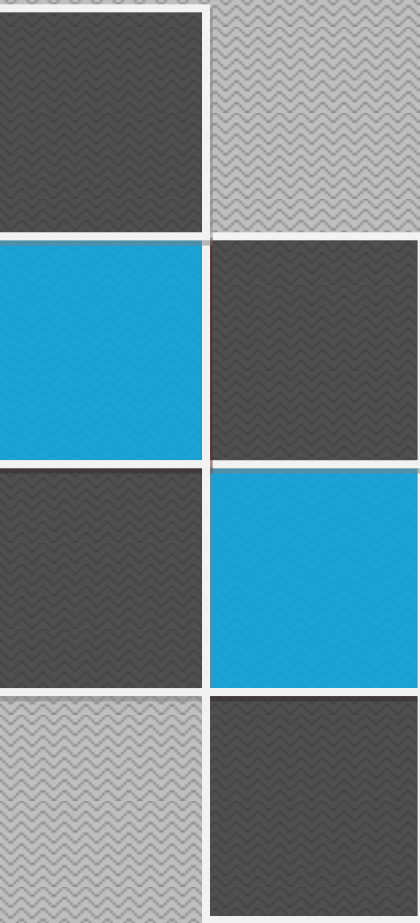
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Established since 1981

Product Brochure

- Steel & Aluminium Security Shutters**
- Fire Shutters, Fire & Smoke Curtains – 60/120/240min**
- Heavy Duty Insulated Roller Shutters**
- Fast Action Insulated Roller Shutters**
- High Security Anti-Cut Security Roller Shutters**
- Residential Roller Shutters**
- Sliding Folding Shutter Doors**
- Steel Hinged Security Door Sets**
- Fire Resistant / Fire Exit Steel Door Sets**
- High Security & Blast Resistant Steel Door Sets**
- High Speed Doors – Roll Up & Fold Up**
- Security Gates & Traffic/Parking Barriers**
- Collapsible Lattice Gates**
- Auto/Manual Aluminium Glass Door Sets**
- Telescopic & Fixed Parking Posts**
- Hoop Barriers**
- PVC Strip Curtains**
- Burglar Bars**
- Maintenance Contracts**



24 HOUR EMERGENCY SERVICE



Contents

Page 4	-	Company Profile
Page 5 - 6	-	Steel Security Roller Shutter Systems – Solid – Commercial & Retail
Page 7 - 8	-	Steel Security Roller Shutter Systems – Vision – Commercial & Retail
Page 9 - 10	-	Steel Security Roller Shutter Systems – Industrial
Page 11-18	-	Fire Resistant Roller Shutter Systems <ul style="list-style-type: none">• Flameshield 120 Tubular Motor Fire Shutter System – 60/120 minutes• Flame 240 Tubular Motor Fire Shutter System – 60/120/240 minutes• A200 Industrial Fire Shutter System – 60/120/240 minutes
Page 19-20	-	Fire and Smoke Resistant Fire Curtain Systems – 60/120 minutes
Page 21	-	Insulated Roller Shutter System – Radiant Heat Fire Shutter - Fireflex-R
Page 22	-	Insulated Roller Shutter System – Euroflex
Page 23	-	Insulated Roller Shutter System – Heavy Duty – Insuflex
Page 24	-	Insulated Roller Shutter System – Fast Action – Eurospeed
Page 25-26	-	High Security Anti-Cut Roller Shutter - Secureflex
Page 27	-	Industrial Roller Shutter System – Vision – Euroglaze
Page 28	-	Aluminium Roller Shutter Systems <ul style="list-style-type: none">• WP42/WP36/WP77 Vision Master Punched Shutter• WP42/WP36 Vision Master Perforated Shutter
Page 29	-	Aluminium Roller Shutter Systems <ul style="list-style-type: none">• WP36 Extruded Safe Shutter and WP38 Resin Safe Shutter• The Rolladoor – Ultimate Garage Door
Page 30	-	Aluminium Roller Shutter Systems <ul style="list-style-type: none">• Compact Ultimate Garage Door• WP53 Extruded Safe
Page 31	-	Aluminium Roller Shutter Systems <ul style="list-style-type: none">• New Build Shutter Systems
Page 32-33	-	Industrial Sliding Folding Shutter Door Systems
Page 34	-	Sectional Overhead Doors
Page 35	-	Security Gates & Traffic/Parking Barriers
Page 36-37	-	Automatic & Manual Glass Door Systems

Contents

Page 38	-	Steel Hinged Security Door Sets
Page 39	-	Steel Hinged SD4 High Security & Blast Door Set
Page 40	-	Steel Hinged Fire Resistant / Fire Exit Door Sets
Page 41	-	High Speed Roll-Up Door/Curtain – MIO-PAT
Page 42	-	High Speed Fold-Up Door/Curtain – MIO-PIC 50/75
Page 43	-	Collapsible Lattice Gates <ul style="list-style-type: none">• CX1 Lattice Gate System• CX2 LPCB Security Level 1 Lattice Gate System
Page 44	-	Collapsible Lattice Gates <ul style="list-style-type: none">• CX3 Lattice Gate System
Page 45	-	Telescopic Posts Steel Hoop Barriers
Page 46	-	PVC Strip Curtains
Page 47	-	Burglar Bars



Company Profile

Founded in 1981, Abacus Shutters Limited have been specialising in the supply, installation, repair and maintenance of all types of fire and security roller shutters, doors, grilles and gates for industrial, commercial and residential premises. Our innovative approach to our chosen products, combined with strength and stability, has resulted in an impressive range of steel and aluminium roller shutter systems, various security and fire steel door sets and the more recent introduction of a complete range of fire shutters and fire curtains to.

This comprehensive product range comes with a full 12 month guarantee and exceptional after-sales support. In addition, the full package of services provided by Abacus Shutters Limited brings the benefit of single source responsibility for architects, specifiers and contractors alike.

Abacus Shutters Limited is a member of the DHF (Door and Hardware Federation, formerly known as the Door and Shutter Manufacturers Association). Our products carry the CE mark and comply with all relevant legislation and quality assurance requirements of ISO 9001:2008 and our experienced team are happy to deal with any compliance issues you may have for total peace of mind about the standard of security and safety provided.

The first priority for Abacus Shutters Limited is to provide you with the right products to protect your business or home. Our fire doors are built to withstand and contain a fire long enough for you to take action and every one of our security shutters, doors, grilles and gates are designed to keep potential thieves out.

Our second priority is to please aesthetically without compromising security. If you want your shop displays to be seen at night, choose from our range of Perforated, Punched and Portcullis shutters for maximum visibility. Abacus Shutters Limited's products are bespoke by nature and are built to suit our customers every need and we aim to have them fully fitted within three to four weeks from receipt of order.

Once fitted, our services do not halt. Abacus Shutters Limited offers a complete on-going inspection, maintenance and repair service. Our company has grown to accommodate more engineers whose job it is to respond to any repairs or maintenance requests you require on a 24 hour basis. If the problem cannot be solved over the telephone an engineer is dispatched to initiate repairs and make the property secure. Those clients who have used our services for many years reflect the strength of our business and are a testament to the personal service that we provide.

Our customer base includes Network Rail Infrastructure Limited, Tolent Construction Limited, BCM Construction Limited, RWE Npower PLC and many more. These companies have chosen Abacus Shutters Limited to successfully complete their security projects and you can be confident that we will be here when needed.



Steel Security Roller Shutter Systems – Solid – Commercial & Retail

Commercial & Retail steel security roller shutter systems are the ideal choice for buildings such as shops, schools, health centres, offices and local authority buildings. They combine strength and elegance with durability and cost effectiveness. They are hard wearing and designed to cope with moderate traffic levels for internal and external applications.

- Curtain:** Constructed from 75mm x 20swg solid galvanised steel dome laths. All laths are interlocked with either nylon, steel or cast end lock system and finished with a double or single angle formed bottom rail curtain as standard.
- Barrel:** Manufactured from mild steel tube. Tube sizes vary from 102mm – 127mm based on the overall width and height of the curtain and the gauge of its laths. The tube wall thickness varies depending on the width of the shutter. The barrels are mounted on steel shafts with support bearings varying from 16mm to 25mm dependent on the overall size of the shutter. A tempered steel helical torsion spring or a tubular motor are contained within the barrel depending on manual or electric operation.
- End Plates:** Constructed from galvanised/mild steel plate and ranging from 2.5mm - 6mm thick dependent on shutter size.
- Guides:** 50-101mm straight galvanized steel guides mounted on 75mm x 50mm x 3-5mm thick galvanised steel angles as standard.
65mm-101mm Steel wind guide channel section mounted on 75mm x 50mm x 3-5mm thick galvanised steel angles (if required).
- Hood:** Formed from 20swg galvanized steel sheet metal to the desired shape for each individual shutter.
- Locking:** With spring assisted shutters either bullet locks or centre lock is supplied as standard. Electric shutters do not have a manual locking facility but our interlocking isolating key switch mechanism can be installed for additional security.
- Finishes:** The curtain, guides, angles and endplates are galvanized, the barrel mild steel depending upon size and application. A polyester powder coating system is available using any standard colour to a RAL or BS 4800 number.
- Operation:** Operation is dependent upon shutter size and is either manual and spring assisted or electric using a 240 volt single phase tubular motor. Single phase electric shutters are powered by tubular motors which draw 0.5-5.0amps of current dependent upon shutter size. Emergency manual override systems, battery backup units, key switches, key pads, remote controls and photo cells can all be fitted as added extras.
- Safety Regulation:** All shutters comply with the supply of machinery safety regulations 1992. All electrically powered shutters are CE Marked as standard.
- Maximum Overall size:** Manual: 2500mm wide x 2500mm high. Electric: 6000mm wide x 4000mm high.

Steel Security Roller Shutter Systems – Solid – Commercial & Retail

Electric roller shutters, powder coated green.



Manual roller shutter galvanised finish.



Bullet locking.



Steel Security Roller Shutter Systems – Vision – Commercial & Retail

Vision shutters, like solid steel shutters, offer effective security for your premises with the sole difference that you can see through them. This makes them the ideal choice for places such as shopping centres and art galleries where security is still paramount but being able to see attractive window displays out of hours can be lucrative for business.

Security guards are also able to see right inside your premises with vision shutters, increasing the level of safety and making them suitable for an even wider range of establishments including airports and railway stations. With a wide range of visibility options including punched lath, perforated lath and portcullis grilles, please feel free to talk to Abacus Shutters Limited to select the correct vision shutters for your project.

- Vision:**
- * Perforated galvanised steel dome lath can be interchanged with solid steel dome lath profiles where partial vision is required.
 - * Punched lath sections may be interchanged with perforated profiles when additional airflow is necessary. Abacus Shutters Limited will only install punched laths over a height of 2000mm.
 - * Portcullis grilles have a brick bond appearance and are the best option for maximum airflow.
- Curtain:**
- * Perforated and punched steel shutters are constructed from 75mm x 20swg perforated/punched galvanised steel dome laths, interlocked with either a nylon, steel or cast end lock system as standard and finished with a 'T' or 'L' section bottom rail.
 - * Portcullis grilles are made from aluminium tubes and links with steel rods.
- Barrel:**
- Manufactured from mild steel tube. Tube sizes vary from 102mm – 127mm based on the overall width and height of the curtain and the gauge of its laths. The tube wall thickness varies depending on the width of the shutter. The barrels are mounted on steel shafts with support bearings varying from 16mm to 25mm dependent on the overall size of the shutter. A tempered steel helical torsion spring or a tubular motor are contained within the barrel depending on manual or electric operation.
- End Plates:**
- Constructed from galvanized/mild steel plate and ranging from 2.5mm-6mm thick dependent on shutter size.
- Guides:**
- 50-101mm straight galvanized steel guides mounted on 75mm x 50mm x 3-5mm thick galvanized steel angles as standard. 65mm-101mm Steel wind guide channel section is also available, where necessary.
- Hood:**
- Formed from 20swg galvanized steel sheet metal to the desired shape for each individual shutter.
- Locking:**
- With spring assisted shutters either bullet locks or centre lock is supplied as standard. Electric shutters do not have a manual locking facility but our interlocking isolating key switch mechanism can be installed for additional security.
- Finishes:**
- The curtain and guides are both galvanized and angles, barrel and end plates are either galvanized or mild steel depending upon size and application. A polyester powder coating system is available using any standard colour to a RAL or BS 4800 number.
- Operation:**
- Operation is dependent upon shutter size and is either manual and spring assisted or electric using a 240 volt single phase tubular motor. Single phase electric shutters are powered by tubular motors which draw 0.5-5.0amps of current dependent upon shutter size. Emergency manual override systems, battery backup units, key switches, key pads, remote controls and photo cells can all be fitted as added extras.
- Safety Regulation:**
- All shutters comply with the supply of machinery safety regulations 1992. All electrically powered shutters are CE Marked as standard.
- Maximum Overall size:**
- Manual: 2500mm wide x 2500mm high. Electric: 6000mm wide x 4000mm high.

Steel Security Roller Shutter Systems – Vision – Commercial & Retail

Perforated curtain, powder coated white.



A portcullis grille.



Electric perforated servery shutter powder coated white.



Steel Security Roller Shutter Systems - Industrial

Abacus Shutters Limited offers a wide range of industrial shutters to provide an effective security solution for all types of industrial premises from new industrial units to factory extensions or refurbishments. These manual hand chain and electric roller shutter systems in traditional single skin steel dome lath provide excellent security protection for industrial environments that are both strong and manageable in daily use.

Curtain: Constructed from 75mm x 18-20swg curved interlocking galvanized single skin steel dome lath interlocked with either a nylon, steel or cast end lock system as standard and finished with a 'T' or 'L' section bottom rail.

Barrel: For openings up to 5m wide the barrel is constructed from 127mm-139mm diameter steel tube with helical counter balance spring(s), mounted on 25-40mm bright steel shaft, with mild steel bearing blocks at each end.

End Plates: Made from 3mm-10mm galvanized/mild steel and formed to suit shutter weight and box depending on its size.

Guides: Constructed from 65mm-101mm x 3mm-5mm thick galvanized steel channel or 65mm-101mm galvanised steel wind guide channel section. These are bolted to 75mm x 50mm or 100mm x 50mm galvanised/mild steel angle and run down either side of the shutter.

Hood: Formed from 20swg galvanized steel sheet metal to the desired shape for each individual shutter.

Finishes: The curtain and guides are both galvanized finish and the angles, barrel and end plates are galvanised or mild steel depending upon shutter size. A brush coat of primer paint will be used on all mild steel as standard. A polyester powder coating system is available using any standard colour to a RAL or BS 4800 number.

Operation: By means of a manual haul chain, Safedrive direct drive motor or a chain drive geared motor (0.5 - 2 horsepower dependent on shutter size) both with emergency hand operation mechanism. A surface mounted open/close/stop push button control comes as standard. Electrical supply is either 240 volts single phase or 415 volts, neutral and earth for three phase.

Hand Chain Gearing: By means of a continuous galvanized hand chain which drives mild steel sprockets connected by a high speed roll chain.

Optional Extras: Wind lock guide channel with wind anchor system, wicket door, bottom draught strip, heavy-duty weather seal, battery backup units, key switches, key pads, proximity reader, remote control, safety edge and photo cells can all be fitted as added extras.

Safety Regulation: All shutters comply with the supply of machinery safety regulations 1992. All electrically powered shutters are CE Marked as standard.



Steel Security Roller Shutter Systems - Industrial

Industrial steel roller shutter systems galvanised finish.



A row of direct drive roller shutter systems in a warehouse.



Fire Resistant Roller Shutter System - Flameshield 120 - 60/120 minutes

At Abacus Shutters Limited we understand your business needs the right fire shutter for the job. And we're also aware that, especially in areas like receptions and serveries, you want it to look good, too. Our innovative, bespoke range of stylish and effective Flameshield Shutter gives you the fire-safety protection you need, with clean lines and discreet internal motors also enhancing the aesthetics of your secured premises.

Testing and Certification

Fire Test: Clause 8 BS 476: PART 22: 1987 & EN1634-1:2008

Warrington Fire Research Centre: WARRES No 145904

Integrity: 120 minutes

Maximum Surface Area: 10m²

Curtain: Manufactured from a 50mm flat (5.3 kg/m²)/ 75mm 20swg (16.5kg/m²) galvanised steel dome laths interlocked with steel end locks and galvanised double angle formed bottom rail (49mm high x 74mm deep)

Barrel: Manufactured from mild steel tube (101.6mm (1.6mm), 101.6mm (3.2mm) or 5" round steel barrels are used), tube size varies based on the overall width and height of the curtain and the gauge of laths. The tube wall thickness varies dependant on the width of the shutter, the barrels are mounted on bright steel shafts varying from 18mm to 30mm dependant on the overall size of the shutter. The shafts have mild steel bearing blocks at non geared end and tubular motor at the geared end.

End Plates: Manufactured from 3mm mild steel plate. The end plate has a formed motor compartment which will be packed with non-combustible material.

Guides: Constructed from 50mm-65mm straight channel galvanised guide mounted on 50mm x 50mm mild steel angle (minimum) and the guides/angles are slotted for expansion.

Hood: Formed from 20sg steel sheet, with the top leg slotted for expansion. Dependant on the fire rating of the shutter (i.e. 1 hour, 2hour) and the size of the opening, the shutter could require a hood support bracket.

Finish: The curtain and guides are galvanised, angles, barrel and end plates are painted.
A paint finish using a polyester powder coating system is available, the colour to a standard RAL or BS4800 number subject to availability.

Operation: The door is arranged for 1ph 240v AC tubular motor, which is supplied as standard with a 2.5m 4 core cable.

Release

Mechanisms:

- Fire relay & key switch (requires maintained supply, battery back-up needed if no maintained supply)
- Fire relay, key switch & fusible link (requires maintained supply, battery back-up needed if no maintained supply),
- Fusible link if no fire alarm.

Safety Regulation: All shutters comply with the supply of machinery safety regulations 1992. All electrically powered shutters are CE Marked as standard.

Fire Relay: Principally the commonly used means of release, the characteristics mimic the use of the solenoid on the conventional fire shutter, again linked to the fire alarm, the shutter rather than closing manually through the gearbox will of course be powered down.
The unit will require a maintained supply; if this is not possible a separate battery back-up unit can be provided. 200mm long x 130mm wide x 70mm deep. A volt free signal is required from the fire alarm.



Fire Resistant Roller Shutter System - Flameshield 120 - 60/120 minutes

Fusible

Link Release:

On activation the link, which is a soldered link, separates and releases at 64 degrees centigrade, in effect the temperature release of the link creates a signal to the relay which in turn powers the door down. Again if there is no facility for a maintained supply the battery back-up unit must be used.



Audio Visual

Warning (FDI):

Principally this unit is designed to delay the closing of the fire shutter; generally the fire alarm is linked to the audio visual unit and from the audio visual unit straight into the key switch. There is no need for a separate relay; there is already a relay in the FDI. On activation from the fire alarm the unit starts to "flash & sound", this unit contains a programmable timer which effectively delays the signal to the relay in the panel to close the door. 230mm wide x 240mm long x 120mm deep. A technical sheet giving features and benefits is enclosed with this manual.



Battery Back-Up

Unit (UPS):

Principally the tube motor fire shutter requires a maintained supply. *If* this cannot be achieved then effectively the shutter will require a battery back-up unit. Fundamentally if under fire conditions there is a power failure the *shutter must have a means of* ensuring closure, the unit provided will give the facility for at least one operation under fire conditions. The unit must remain plugged into the mains at all times, or alternatively you can wire this into a fused spur. In effect the shutter should always receive a signal from the fire alarm, under British Standards the fire alarm must have a battery back-up, in the unlikely event of a power failure under fire conditions i.e. alarm has been triggered and the door is closing, if there is a power failure at that particular time the battery pack provided will continue to close the door.

When using the shutter under normal conditions, if there is a power failure the unit can be used again for at least one operation to open or close the shutter manually via the key switch, please bear in mind the unit will require a recharging period of up to 8 hours.

The maximum stand by period for this unit is 4 hours.

It is recommended that you only use the modified battery back-up unit provided by Abacus Shutters Limited, the use of any other unit would be problematic and could nullify the warranty.

The unit comes complete with a wall mounting bracket, the unit must be mounted at high level next to the motor (see layout drawing for dimensions etc).

The physical dimensions of the unit are 280mm long x 170mm high x 90mm high.

The typical battery lifetime is 3-6 years depending on the number of cycles and operating temperature, replacement batteries can be ordered when required.



Fire Resistant Roller Shutter System - Flameshield 120 - 60/120 minutes

Fire Shutter – Size Parameters

The shutter test relates to 1 hour / 2 hour fire resistance.

Effectively the shutters are generally intended for protection of a range of openings in masonry / concrete, steel, steel stud or timber partitions.

The maximum clear openings are for 4000mm wide x 2500mm high, or in a partition system for 1 hour up to an area of 10m², principally this incorporates the BRE test FG 7941N which relates to a tested fire shutter in a stud partition, the opening must be fire rated to suit and be capable of carrying the weight of the shutter. Consideration must be given to the additional weight of the shutters over 3500mm wide x 3000mm high, the configuration/strength of the partition must be increased accordingly.

Where the shutters are used to protect serveries it is assumed that the counter is composed of non-combustible material and the counter is of sufficient width to ensure that the bottom rail movement under heating cannot result in the rail overhanging the counter.

Initially the intended maximum width for the flat lath will be 3500mm.

Shutters over 3500mm up to 5500mm will be traditional curved lath tube motor construction, based on a maximum area of 10m².

Shutters under 4000mm clear width will have 50mm guides and shutters over this width will have the traditional 65mm guides.

The size of the endplates will be 305mm square.

Flameshield 120 – 75mm steel dome lath



Flameshield 120 – 50mm steel flat lath



Fire Resistant Roller Shutter Systems – Flame 240 - 60/120/240 minutes

Developing our fire shutter range is yet another example of the innovative product design and development we possess, with three types of fire shutter and one fire and smoke curtain to cover both commercial and industrial needs. All of our shutters are successfully tested to the BS476 Part 22:1987 regulation and the latest EN 1634-1:2008 regulation with approval and certification for up to four hours fire protection for your premises.

Description: The product is an electrically operated, automatic, vertical, fire shutter, consisting of a steel slatted curtain and galvanised steel box assembly and guide rails. The box, curtain, guide rails and bottom rail can be powder coated as an optional extra.

A 240v AC tubular motor powers the product.

This product is designed to be a security barrier during normal use and to be closed automatically during a test or an emergency situation. In the event of receiving a fire alarm signal, the barrier will perform a controlled descent to create a fire resistant barrier.

Approved Standards:

The fire resistance performance of curtains to BS 476: Part 22:1987 and BS EN 1634-1:2008
The product was tested and approved by Exova Warrington Fire, Report No. 312862

Product

Performance:

This product is capable of providing up to 60, 120 or 240 minutes integrity performance if subjected to a fire resistance test in accordance with the standards mentioned above.

Size Limitations:

Minimum width: 800mm	Minimum height: 800mm
Maximum width: 5000mm	Maximum height: 5000mm

Curtain:

Manufactured from a 50mm flat (5.3 kg/m²)/ 75mm 20swg (16.5kg/m²) galvanised steel dome laths interlocked with steel end locks and galvanised double angle formed bottom rail (49mm high x 74mm deep)

Barrel:

Manufactured from mild steel tube (101.6mm (1.6mm), 101.6mm (3.2mm) 5", 5½" or 6 5/8" round steel barrels are used), tube size varies based on the overall width and height of the curtain and the gauge of laths. The tube wall thickness varies dependant on the width of the shutter, the barrels are mounted on bright steel shafts varying from 18mm to 30mm dependant on the overall size of the shutter. The shafts have mild steel bearing blocks at non geared end and tubular motor at the geared end.

End Plates:

Manufactured from 3mm mild steel plate. The end plate has a formed motor compartment which will be packed with non-combustible material.

Guides:

Constructed from 50 x 3mm or 65x 3mm straight channel galvanised guide mounted on 50mm x 50mm mild steel angle (minimum) and the guides/angles are slotted for expansion.

Hood:

Formed from 20swg steel sheet, with the top leg slotted for expansion. Dependant on the fire rating of the shutter (i.e. 1 hour, 2hour) and the size of the opening, the shutter could require a hood support bracket.

Finish:

The curtain and guides are galvanised, angles, barrel and end plates are painted.
A paint finish using a polyester powder coating system is available, the colour to a standard RAL or BS4800 number subject to availability.

Operation:

The door is arranged for 1ph 240v AC tubular motor, which is supplied as standard with a 2.5m 4 core cable.

Control Options:

- Control Panel with integral Battery Backup
- Control Panel with separate Battery Backup
- Individual Battery Backup with fire alarm interface relay



Fire Resistant Roller Shutter Systems – Flame 240 - 60/120/240 minutes

Safety Regulation: All shutters comply with the supply of machinery safety regulations 1992. All electrically powered shutters are CE Marked as standard.

Maintenance and testing of the product

The period between checks is at the discretion of the customer however, we recommend the following:

- | | |
|--------------|--|
| Weekly | Check all the system for correct operation. Test operation of systems, self-contained detectors and check the integrity of the curtain. |
| 3 – 6 months | Inspection and test of the system by a competent engineer. |
| Annually | Full inspection and test of the system by a competent engineer, clean self-contained detectors. Replace the two 12v lead acid batteries in the control panel*. |

Flame 240 – 75mm dome lath, galvanised finish



Flame 240 – 50mm flat lath, powder coated white



Flame 240 – 75mm Solid dome lath, powder coated white



Fire Resistant Roller Shutter Systems – A200/Flameshield 240 - 60/120/240 minutes

Fire Shutters are an increasingly popular option and offer fire protection at up to four hours greater than would be the case for a standard non fire rated door or shutter. They can be used to section off and protect a particular part of a building, the whole building, or even provide protection between floors. Fire Shutters help many businesses to ensure that they protect their goods, buildings and employees from the threat of fire by offering potentially significant delays to the spread of fire.

Testing & Certification

- Tested in the United Kingdom and fully approved to British Standard BS 476: Part 22:1987 and BS EN 1634-1:2008 for up to 4 hours fire resistance.
- Standard Certification covers fire shutters up to 7000mm wide x 7000mm high
- Additional contract specific assessments available for shutters above this size from Exova Warrington Fire

Curtain

- Constructed from solid 75mm curved galvanised steel interlocking lath sections manufactured to BS EN 10142 and BS EN 10143 with a zinc coating of 275g/m² complete with zinc plated mild steel end locks and galvanised steel ‘T’ shaped bottom rail.
- The curtain is available in 20swg (0.91mm) or 18swg (1.22mm) finished at the bottom with a galvanised steel ‘T’ shaped bottom rail.

Standard lath parameters as follows:

STRUCTURAL WIDTH	STRUCTURAL HEIGHT	LATH GAUGE
0 – 5250mm	0 – 4000mm	20swg (0.91mm)
Above 5250mm	Above 4000mm	18swg (1.22mm)

Barrel

- Constructed from high quality mild steel tube manufactured to BS EN 10219
- Overall size of the tube varies to suit the width of the opening and weight of the shutter curtain
- Tube wall thickness varies depending on the size of the shutter from 3.2mm to 19mm to achieve minimum deflection and a safety factor of 2
- Barrels come complete with tempered steel helical torsion springs manufactured using hard drawn wire to BS 5216 mounted on bright steel shafts of various diameters from 20mm to 50mm depending on the size of the shutter
- Shafts are held in place using mild steel bearing blocks incorporating high-speed bearings to ensure concentric rotation

End Plates

- Formed from 6mm thick mild steel plate to and sized to accommodate the weight of the shutter and wrap of the curtain around the barrel

End plate parameters will vary depending on the mode of operation as follows:

MANUAL	HAND CHAIN
STRUCTURAL HEIGHT	END PLATE SIZE
0 – 4000mm	400mm

ELECTRIC OPERATION	GEARED MOTOR
STRUCTURAL HEIGHT	END PLATE SIZE
0 – 3000mm	350mm
3000mm – 5000mm	400mm
5000mm – 7500mm	550mm
Above 7500mm	Consult Abacus Shutters Ltd

All the above parameters assume shutters are inside fixed. For other fixing arrangements consult manufacturer.



Fire Resistant Roller Shutter Systems – A200/Flameshield 240 - 60/120/240 minutes

Guides

There is one type of guide available:

- Constructed from 65mm or 102mm x 32mm x 3mm thick galvanised steel channel manufactured to BS EN 10142 and BS EN 10143 with a zinc coating of 275g/m², complete with splayed tops, bolted to 75mm x 50mm x 6mm thick continuous mild steel angle sections manufactured to BS 4848 Part 4, complete with 12mm x 50mm slotted fixing holes positioned at 550mm maximum centres

Hood.

- Constructed from 20swg (0.91mm thick) galvanised steel sheet manufactured to BS EN 10142 and BS EN 10143 with a zinc coating of 275g/m², and fitted with hood support brackets constructed from mild steel angle sections manufactured to BS 4848 Part 4 and finished with a zinc-rich primer paint as standard
- The hood brackets support the hood and help provide a fire seal in the event of a fire. The number of support brackets used is determined by the width and fire resistance of the shutter.

Available Finishes

- All mild steel surfaces receive one coat of rust inhibiting primer paint
- All galvanised steel is manufactured to BS EN 10142 designation FeP02 G Z275 NA (Same as BS 2989 designation Z2 G N and ASTM A 527) and BS EN 10143, hot dip galvanised with a zinc coating of 275g/m² and comes with a normal spangle finish
- Paint finish available using a polyester powder coating system (minimum DFT 50 microns, average DFT 70 microns) to any standard RAL or BS 4800 colour

Manual Hand Chain Operated Shutters

- Maximum Size: 6000mm wide x 4000mm high
- Operation is via a manual hand chain mechanism (which may require the addition of double reduction gears towards the larger widths and heights in the available range) using a spring assisted barrel
- Manual fire shutters are under sprung in order to ensure they close in the event of a fire, consequently, frequent use is not recommended
- Designed to remain in the open position and close in the event of a fire
- After a fire test, the shutter can be hauled back into the open position using the hand chain
- Closing is via a drop bar weight located in the secondary guide channels

Electrically Operated Shutters

- Maximum Standard Size: 7000mm wide x 7000mm high
- Larger size fire shutters can be manufactured but require special certification from Exova Warrington Fire.
- Shutter driven by a geared electric motor unit rated to IP54 complete with an integral controlled descent mechanism, rotary limits, emergency hand chain mechanism and push button starter rated to IP65 with open/close/stop controls requiring an electrical supply of 415v 3 phase 50Hz
- A variety of release mechanisms can be incorporated in the operator package including fusible link and manual or automatic reset solenoid release mechanisms. For further details on the release mechanisms see separate section

Release Mechanisms

Fusible link Release Mechanism

- A soldered link designed to melt at 68 C separates and release the drop bar (on manual shutters) or the clutch (on electrically operated shutters) putting the shutter into the fire mode making it close

Manual Solenoid Release Mechanism

- The solenoid release mechanism is designed to be connected to the fire alarm
- On receipt of a 24 volt 0.5amp signal, the solenoid will release the drop bar weight and the shutter will close

Automatic Reset Solenoid Release Mechanism

- The auto reset solenoid release is designed to be connected to the fire alarm system
- Upon receipt of a 24 volt 0.5amp signal, the clutch will disengage allowing the door to close under controlled descent
- When the door is returned to the open position after removal of the fire signal, the solenoid will reset itself automatically. This is commonly used and ideal for frequent testing

Fire Resistant Roller Shutter Systems – A200/Flameshield 240 - 60/120/240 minutes

Safety Devices

Manual Controlled Descent

- Designed to control the descent of the shutter in the event of a fire
- We recommend that this should be used on all manual shutters that are linked to the fire alarm using a solenoid release mechanism, where there is a risk of someone being underneath the shutter when the fire alarm is being tested

Fire Door Interface (F.D.I.) Audio-Visual Warning Panel

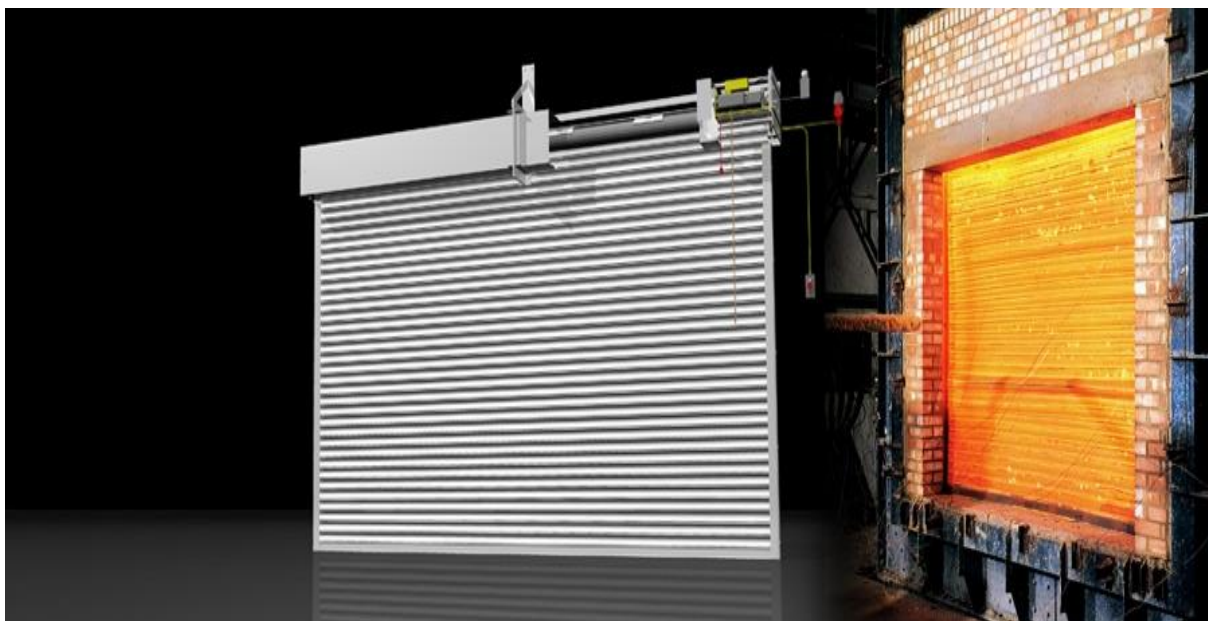
- Fire Door Interface panels consist of an audio-visual warning and timer delay
- Upon receipt of a 24 volt 2amp signal a siren will sound and the warning FIRE DOOR CLOSING display will flash
- After a pre-set time the panel will send a signal to the solenoid release mechanism causing the clutch to disengage and the shutter will close
- A repeater panel can also be provided to the other side of the opening if required. This also requires a 2amp supply

Fire Door Interface (F.D.I.) Battery Back-Up Panel

- If the fire alarm system cannot provide the required amount of current to activate the chosen system, an FDI battery back-up panel can be provided. This is capable of giving a maximum output of 16amps, which will provide enough current to activate three locally based shutters using an audio-visual repeater panel and an auto reset solenoid release.
- The panel will require a supply of 240volts rated at 5amps

Activation and Power Requirements

3 Phase Operators	415 volts, 3-phase, 50Hz neutral and earth rated at 10amps per phase
Single Phase Operators	240 volts, 50Hz rated at 13amps (motor fuses)
Solenoid Release	24 volt D.C 0.5amps on activation
Solenoid and F.D.I / Audio-Visual Panel	24 volt D.C 2amps on activation
Solenoid / F.D.I / Audio-Visual / Repeater Panel	24 volt D.C 4amps on activation



Fire and Smoke Resistant Fire Curtain System Flameshield 120 Fire & Smoke Curtain - 60/120 minutes

Fire Curtains restrict the lateral spread of smoke and gas along the underside of an internal ceiling in the event of fire. Fire Curtains are effective as part of a smoke control fire safety system. Smoke reservoirs can be created from which smoke and hot gases can be extracted, or Fire Curtains may alternatively be implemented to prevent the spread of smoke allowing time for escape.

Testing & Certification

FIRE TEST: BS 476: PART 22: 1987 & BS EN 1634-1:2008
FIRE/HEAT CRITERIA – BS7346: WARRNES No. 169806
WARRINGTON FIRE RESEARCH CENTRE WARRES No 169805
INTEGRITY: 120 minutes
MAXIMUM SURFACE AREA: 10m²



- Curtain:** Manufactured from fire rated fabric 0.65mm thick, stitched and hemmed (where required) using Kevlar and stainless steel thread. The unique two section bottom rail allows smooth operation of the curtain.
- Barrel:** Manufactured from seamless mild steel tube to BS4760 Grade 50C. Maximum barrel deflection measured at 1:400, fitted with 20mm high speed bearings.
- End Plates:** Manufactured from 2.5mm mild steel plate. The end plate has a formed motor compartment which will be packed with non-combustible material.
- Guides:** Formed from 2.5mm mild steel plate in two sections. The front section of the guide is removable and allows repairs to be effected without dismantling the door and the guides are slotted for expansion.
- Hood:** The fire casing is formed from 1.2 mm galvanised steel plates and is slotted for expansion.
- Operation:** The door is arranged for 1ph 240v AC or 24v DC tubular motor.
- Finish:** The fire curtain is standard grey, the end plates, guide, casing etc. are powder coated RAL 9010 white as standard. Other colours are available at an additional cost
- Usage:** Fire curtains are provided with a key switch however it is not recommended for daily use.
- Release Mechanisms:** Our fire curtains are set up to link into a fire alarm system; however other means of activation are available i.e. fusible link, smoke detector etc.

P80 Unit – Standard Control Panel

- Easy set up and connection
- Automatic detection of motor end limits
- Close type options – driven or gravity close as standard
- Dead man operation – key switch, push buttons etc.
- Link to fire alarm, will open or close the fire curtain on receipt of a signal from the fire alarm (Volt free signal required).
- Facility within the panel for an emergency escape/fireman's switch, this would only operate if there is mains available
- 24v battery backup as standard (5 hours stand by time), can be used in the event of power failure.
- Facility for Alarm Test
- Gravity failsafe available dependent on type of motor used.

Fire and Smoke Resistant Fire Curtain System Flameshield 120 Fire & Smoke Curtain - 60/120 minutes

P80 Operational Overview

The P80 generally operates via a wall mounted 3-position key switch. Under normal operation the curtain is opened and closed via this key switch.

Fire Conditions – The panel continuously monitors the normally closed alarm input terminals. If the terminals go open i.e. alarm triggered, the curtain will close under power or gravity to the fully closed position. Providing the alarm signal is cleared you can re-open the curtain accordingly.

Facility to link audio or visual warning devices, a siren or flashing light can be added, during the time the alarm input is open the 24v DC alarm is activated to allow these units to be added.

An emergency over-ride alarm button can be used. This will allow you to open the curtain even if the alarm signal is still present, effectively, if the alarm signal is still active, once you remove the signal i.e. the over-ride button is released, the curtain will re-commence its close cycle.

The P80 unit has a test function input that allows regular testing of the control/curtain.

P100 Unit – Advanced Control Panel

- Easy set up and connection
- Automatic detection of motor end limits
- Close type options – driven or gravity close as standard
- Dead man operation – key switch, push buttons etc.
- Link to fire alarm, will open or close the fire curtain on receipt of a signal from the fire alarm (Volt free signal required).
- Can be activated via fusible link, smoke detectors etc.
- 2 stage controlled descent available
- Status relays indicating fully open or fully closed
- Safety devices input
- Low battery auto close feature
- Group control facility
- Facility within the panel for an emergency escape/fireman's switch, this would only operate if there is mains available
- 24v battery backup as standard (5 hours stand by time), can be used in the event of power failure.
- Facility for Alarm Test
- Gravity failsafe available dependent on type of motor used.



Insulated Roller Shutter System – Radiant Heat Fire Shutter - Fireflex-R

The Fireflex-R is an obvious choice for situations where increased risk of fire is a major concern. The Fireflex-R provides a substantial safety barrier between the source of the fire and any precious or dangerously flammable stock. This shutter has an insulated curtain which is able to keep its unexposed face surface radiation below 20kW/m² when applied to the time temperature curve of BS 476 Part 20: 1987 and EN 1634-1. The Fireflex-R will provide 96% more protection from a radiant heat source than a standard steel fire roller shutter.

Opening Speed: 220mm per second.

Curtain: Constructed from pre-galvanised material, designed to provide a hollow section panel with CFC and HCFC free thermal infill. Each panel section is 100mm deep with twin-ribbed face for rigidity.

End Locks: The curtain when assembled is held in position with purposely-designed injection moulded end locks manufactured from hardwearing nylon-6.

Bottom Bar/Seal: The bottom panel of the shutter is terminated with a purpose designed plastic extrusion complete with interlocking (EPDM) rubber weather seal.

Barrel: Manufactured from seamless mild steel tube to BS4760 Grade 50C. Barrel size is made to suit the shutter width and height. Maximum barrel deflection 1:400. Fitted with precision-machined BDMS axles to BS970 EN33.

End Plates: The main support brackets for the barrel and motor unit are manufactured from mild steel plates of varying thickness depending on shutter size. These incorporate the necessary fixing positions for securing back to the opening structure.

Guides: Formed from pre-galvanised steel having a minimum thickness of 2.5mm incorporating twin vertical brushes on both inner and outer face of the guide. Brush carrier is constructed from PVC of medium impact strength, finished black and incorporating twin siliconised polypropylene weather strips running the full height of the door. The guide profile is designed with reduced working faces and tapered inner faces. Complete with continuous 100mm x 65mm galvanised fixing angle and wind lock guides for areas of high wind pressure.

Operation: The shutter is arranged for an electric motor unit with manual hand hoisting and lowering facility. The motor unit is complete with an in-built safety drive system. Operating voltage is 400V. Three phase IP54 protection with 60% duty cycle maintenance free and TUV tested, complying with all current European safety standards.

Electrical Supply: Three phase neutral & earth, 415v, 50Hz rated at 16-20 amps in a 3ph 5-pin 16amp red industrial socket.

Sound Reduction: The Fireflex-R roller shutter has a weighted sound reduction value of 18dB (BS 5821 Part 3: 1984).

Integrity: 240 minutes.

Irradiance: 2.7W/m²K.

Maximum Surface Area: 50m²



Insulated Roller Shutter System – Economy - Euroflex

Stylish and affordable shutters with a wide range of uses throughout most applications. The high quality and compact nature of the shutter make this a first choice for many structural openings. The Euroflex meets today's architectural demands for aesthetics, reliability, performance and safety and our EcoTech polyurethane foam infill ensures that Euroflex doors minimise energy waste, both with heat 'flow through' and around the curtain.

Opening Speed: 220mm per second.

Curtain: Constructed from interlocking pre-galvanised steel lathes with an Ecotech formula foam infill which is CFC free and ODP zero with a low global warming potential value of 3. Each panel section is 94mm deep with a multi-ribbed face for rigidity.

End Locks: The curtain when assembled is held in position with purposely designed injection moulded end fittings, manufactured from hard wearing nylon-6 which sits on the outside of the panels minimising scuffing and damage.

Bottom Bar/Seal: The bottom panel of the shutter is terminated with a purpose designed plastic extrusion complete with interlocking (EPDM) rubber weather seal.

Barrel: Manufactured from seamless mild steel tube to BS 4760 Grade 50C. Tube gauge to suit shutter width and height. Maximum barrel deflection 1:400. Fitted with precision machined BDMS axles to BS 970 EN933 standard.

Guides: Cold rolled steel channels manufactured from 2mm x 22swg pre galvanised steel to BS 2989: 1982, welded to 100mm x 65mm x 3mm galvanised support angles. Incorporates twin vertical brushes on both inner and outer faces of the guide. The guide profile is designed with reduced working faces and tapered inner faces. Complete with continuous 100mm x 65mm galvanised fixing angle and wind lock guides for areas of high wind pressure.

End Plates: Fabricated from mild steel plates complete with angle support brackets to BS 4360/43A. Size and gauge dependent upon door size and weight.

Operation: The shutter is arranged for an electric motor unit with manual hand hoisting and lowering facility. The motor unit is complete with an in-built safety drive system. Operating voltage is 400V. Three phase IP54 protection with 60% duty cycle maintenance free and TUV tested, complying with all current European safety standards. Opening speed of shutter is around 220mm per second.

Electrical Supply: Three phase neutral & earth, 415v, 50Hz rated at 16-20 amps in a 3ph 5-pin 16amp red industrial socket.

One Dimensional Heat Flow Value: 1.56 W/m²K.

U-Value: 4.8 W/m²K.



Insulated Roller Shutter System – Heavy Duty – Premium - Insuflex

The Insuflex shutter is ideal for situations where energy conservation, protection against the elements, extreme noise and a high level of security are vital, such as Warehouses, distribution centres, garages/factories, equipment noise partitioning, paint spray booths, maintenance buildings and storage facilities.

Opening Speed: 220mm per second

Curtain: Constructed from pre-galvanised material, designed to provide a hollow section panel with CFC and HCFC free thermal infill. Each panel section is 100mm deep with twin-ribbed face for rigidity.

End Locks: The curtain when assembled is held in position with purposely-designed injection moulded end locks manufactured from hardwearing nylon-6.

Bottom Bar/Seal: The bottom panel of the shutter is terminated with a purpose designed plastic extrusion complete with interlocking (EPDM) rubber weather seal.

Barrel: Manufactured from seamless mild steel tube to BS4760 Grade 50C. Barrel size is made to suit the shutter width and height. Maximum barrel deflection 1:400. Fitted with precision-machined BDMS axles to BS970 EN33.

End Plates: The main support brackets for the barrel and motor unit are manufactured from mild steel plates of varying thickness depending on shutter size. These incorporate the necessary fixing positions for securing back to the opening structure.

Guides: Formed from pre-galvanised steel having a minimum thickness of 2.5mm incorporating twin vertical brushes on both inner and outer face of the guide. Brush carrier is constructed from PVC of medium impact strength, finished black and incorporating twin siliconised polypropylene weather strips running the full height of the door. The guide profile is designed with reduced working faces and tapered inner faces. Complete with continuous 100mm x 65mm galvanised fixing angle and wind lock guides for areas of high wind pressure.

Operation: The shutter is arranged for an electric motor unit with manual hand hoisting and lowering facility. The motor unit is complete with an in-built safety drive system. Operating voltage is 400V. Three phase IP54 protection with 60% duty cycle maintenance free and TUV tested, complying with all current European safety standards. Opening speed of shutter is around 220mm per second.

Electrical Supply: Three phase neutral & earth, 415v, 50Hz rated at 16-20 amps in a 3ph 5-pin 16amp red industrial socket.

Sound Reduction: The Insuflex roller shutter has a weighted sound reduction value of 18dB (BS 5821 Part 3: 1984).

Insulation Value: 1.4 W/m².

One Dimensional Heat Flow Value: 0.96 W/m²K.

U-Value: 5.9 W/m²K.



Insulated Roller Shutter System – Fast Action – Eurospeed

The Eurospeed is the most economical solution for frequently used building access, combining security with speed in just one construction. Its safedrive drive system and smooth quiet operation make these automatic roller shutters ideal as exterior shutters in hospitals, fire stations, car dealerships, industrial applications.

Opening Speed: 550mm per second.

Curtain: Constructed from interlocking pre-galvanised steel lathes with an Ecotech formula foam infill which is CFC free and ODP zero with a low global warming potential value of 3. Each panel section is 94mm deep with a multi-ribbed face for rigidity.

End Locks: The curtain when assembled is held in position with purposely designed injection moulded end fittings, manufactured from hard wearing nylon-6 which sits on the outside of the panels minimising scuffing and damage.

Bottom Bar/Seal: The bottom panel of the shutter is terminated with a purpose designed plastic extrusion complete with interlocking (EPDM) rubber weather seal.

Barrel: Manufactured from seamless mild steel tube to BS 4760 Grade 50C. Tube gauge to suit shutter width and height. Maximum barrel deflection 1:400. Fitted with precision machined BDMS axles to BS 970 EN933 standard.

Guides: Cold rolled steel channels manufactured from 2mm x 22swg pre galvanised steel to BS 2989: 1982, welded to 100mm x 65mm x 3mm galvanised support angles. Incorporates twin vertical brushes on both inner and outer faces of the guide. The guide profile is designed with reduced working faces and tapered inner faces. Complete with continuous 100mm x 65mm galvanised fixing angle and wind lock guides for areas of high wind pressure.

End Plates: Fabricated from mild steel plates complete with angle support brackets to BS 4360/43A. Size and gauge dependent upon door size and weight.

Operation: Operation via Safedrive® Fi Drive unit with built-on frequency inverter with high precision worm drive gear box with integral safety brake system to British and European standards for industrial doors BS 12604:2002. Mechanical aspects and BS 12453:2001 safety in use of power operated doors. Drives are designed for a typical door size to have a life of more than 20,000 cycles and for use up to 6 times per hour. The drive is fitted with low level manual operation in accordance with EN 12453 and 12604 hand force up to 390N is permissible for large, heavy doors. Manual operation is only used for closing the door. In case of Safedrive® units fitted with electric brakes, manual operation is carried out against the brake.

Electrical Supply: Three phase neutral & earth, 415v, 50Hz rated at 16-20 amps in a 3ph 5-pin 16amp red industrial socket.

One Dimensional Heat Flow Value: 1.56 W/m²K.

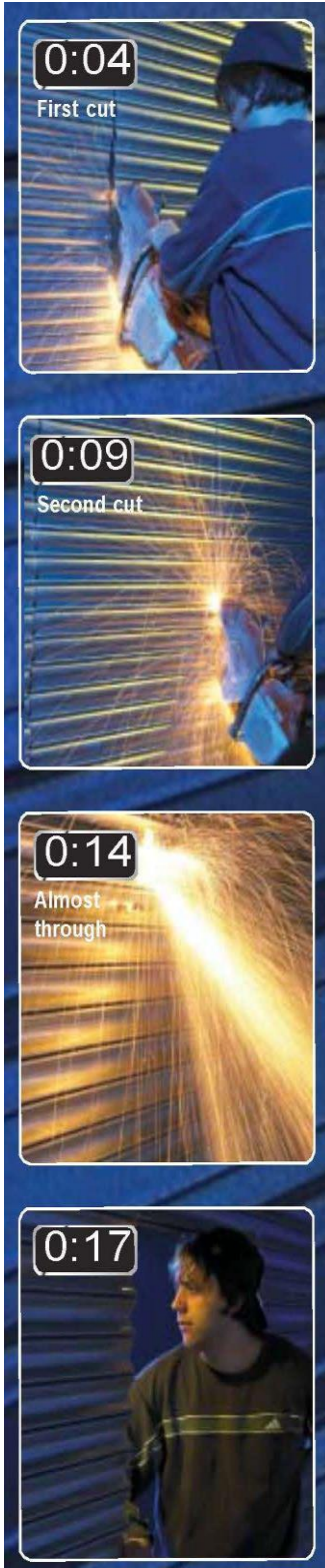
U-Value: 4.8 W/m²K.



Insulated Roller Shutter System – High Security Anti-Cut - Secureflex

Modern criminals use all types of portable cutting equipment to gain entry to warehouses, distribution centres, garages, factories, maintenance buildings, storage facilities etc. Professional criminal gangs can enter and escape, with the contents of a building within four minutes . . .

Single Skin Steel Shutter



Curtain: Constructed from pre galvanized steel and designed to provide a hollow section panel with CFC & HCFC free thermal infill. Each panel section is 100mm deep with twin-ribbed face for rigidity. Each alternative panel includes advanced bonded composite anti-cut bars over the bottom 1.8 metres with added side load fittings.

End Locks: The curtain when assembled is held in position with purposely designed injection moulded end fittings manufactured from hardwearing nylon-6.

Bottom Bar/Seal: The bottom panel of the shutter is terminated with a purpose designed steel section complete with interlocking (EPDM) rubber weather seal.

Barrel: Manufactured from mild steel tube to BS4750 Grade 50C and designed to suit door width and height. Maximum barrel deflection is 1:400 and is fitted with precision-machined BDMS axles to BS970 EN33 blocks. Barrel is sealed with a coat of protective paint.

Guides: Guides are formed from pre galvanized steel with a minimum thickness of 2.5mm incorporating twin vertical brushes on both inner and outer face of the guide. Brush carrier is constructed from PVC of medium impact strength, finished black and incorporating twin siliconised polypropylene weather strips running full height of the shutter.

End Plates: The main support brackets for the barrel and motor unit are manufactured from mild steel plates of varying thickness to suit the door weight and incorporate the necessary fixing positions for securing back to the opening structure.

Operation: The door is arranged for an electric motor unit with manual hand hoisting and lowering facility. The motor unit is complete with an in-built safety drive system. Operating voltage is 400V 3-Phase IP54 protection with 60% duty cycle maintenance free and TUV-Tested, complying with all current European Safety Standards.

Sound Reduction: The Secureflex roller shutter has a weighted sound reduction value of 18dB (BS 5821 Part 3: 1984).

Secureflex Shutter



Insulated Roller Shutter System – High Security Anti-Cut - Secureflex

Insulation Value: 1.4 W/m².



Insulated Roller Shutter System – Vision - Euroglaze

Euroglaze roller shutters are a new glazed shutter system that is suitable for a wide range of commercial applications. The system utilises the Euroflex roller shutter profile, taking advantage of the aesthetically pleasing design and includes lexan glazing for optimal vision.

The addition of various integrated glazing options makes Euroglaze the ideal solution for any modern architecture, where glazing is a preferred option. The Euroglaze system combines all the key technical features that are standard for the company's Euro range of doors and conforms to the latest safety and energy efficiency standards.

With a wide range of uses throughout most applications the high quality and compact nature of the shutter makes this a first choice for any structural opening. Euroglaze meets today's architectural demands for aesthetics, reliability, performance and safety in use.

Side guides incorporate twin vertical brushes to the outer face of the guide channel and are complete with PVC medium impact strength plastic to the inner face, a specially designed aluminium extruded bottom section protects the ground contact area. Door brackets are multi-drilled and mirror imaged for easy 'on site' installation and all of the end plates are finished in BZP with slot adjustment fixings.

Abacus Shutters Limited Euroglaze doors are custom made to fit any opening and are available in galvanised steel finish or polyester powder coated in a range of complimentary colours to suit all modern building architecture.

Innovative section design

Aesthetically pleasing profile with curved inner face and improved design gives superior 'roll up' properties, making this door a premium option in a multitude of different applications, from industrial and commercial through to retail and domestic.

Over 1000 different colours to choose from

Supplied in a range of hard wearing RAL colours ideally suited to modern building projects where specific colours or corporate schemes are needed

Full specification for this product will be available soon



Aluminium Security Roller Shutter Systems

WP42/WP36/WP77 Vision Master Punched Shutter

WP42/36 Curtain - 36mm x 9.5mm, 9.7kg/m². Recommended usable size 3200mm wide x 3000mm high.
WP77 Curtain - 77mm x 19mm, 8.5kg/m². Recommended usable size 6000mm wide x 3000mm high.

The Vision Master is a punched aluminium shutter system that is ideal for shop fronts, kiosks, bars, serveries and other commercial applications where vision is a necessity.

The small roller shutter box constructed from roll formed aluminium sheet, has special shaping to ensure stability throughout its length and with box sizes starting from 165mm x 165mm the roller shutter system automatically becomes aesthetically appealing whilst still retaining its security benefits. The punched sections found in the WP42 profile allows vision, light and air filtration through its 100mm x 22mm punched slots and as an optional extra the punched holes can be protected with 2mm lexan strips for maximum security or to stop rubbish blowing into shop openings. All our shutters are custom made to client requirements in our factory-finish colours with the option to powder coat to any standard RAL or BS4800 colour. Operation can be by internal rod crank winding handle, 240v tubular motor or by a manually spring-loaded operation with key lock bottom rail.



WP42/WP36 Vision Master Perforated Shutter

WP42/36 Curtain - 36mm x 9.5mm, 11kg/m². Recommended usable size 3200mm wide x 3000mm high.

The Perforated Vision Master is a perforated aluminium shutter system that is ideal for shop fronts, kiosks, bars, serveries and other commercial applications where vision is a necessity but security is paramount.

The perforated Vision Master shutter outclasses other systems with its strength and appearance. The special design of the Vision Master's profile ensures small coiling thus reducing the shutter box size dramatically whilst still retaining high levels of security. The perforated sections found in the WP42 profile allow vision, light and air filtration through its 5mm diameter perforation holes. As an acting security feature, a double skinned extruded profile (WP36) is fitted to every alternate lath and secured in place by a high impact polyamide end lock system which is screwed into the WP36 profile. All shutters are custom made to your requirements and our factory-finish colours with the option to powder coat to any standard RAL or BS4800. Operation can be by internal rod crank winding handle, Somfy tubular motor or by a manually spring-loaded operation with key lock bottom rail.



Aluminium Security Roller Shutter Systems

WP36 Extruded Safe Shutter and WP38 Resin Safe Shutter

WP36 Curtain - 36mm x 9.5mm, 11kg/m².
 WP38 Curtain - 38mm x 9.5mm, 7.5kg/m².

Recommended usable size 3200mm wide x 3000mm high.
 Recommended usable size 3000mm wide x 3000mm high.

A new concept in shutter design now makes it possible to have a strong high security shutter with an aesthetically pleasing appearance.

Stylish, thick double skinned extruded aluminium profiles have been designed with special sections to allow standard and anti-vandal end lock systems to be screwed directly in for ultimate security. The profile complete with its high security guide rail completes the ultimate in shutter design. Available in standard factory finish or to suit any RAL or BS4800 colour within our range at a small extra cost. This complete auto lock facility roller shutter system enhances and compliments any application. Operated from inside by a rod crank winding handle or powered by tubular electric motor, both systems lock automatically when lowered. The operation shutter can also be manually spring-loaded operation with key lock bottom rail. The small roller shutter box is constructed from roll formed aluminium sheet and is specially shaped to ensure stability throughout its length. Box sizes start at 165mm x 165mm and increase gradually as the roller shutter increases in size.



WP75 Ultimate Garage Door – The Rollador

Recommended usable size 5000mm wide x 2800mm high.

The WP75 Ultimate Garage Door is the epitome of modern garage door design, aesthetics and security. Simply drive up to the door and press your remote control key fob to see the Rollador effortlessly roll-up and away from sight.

The curtain is constructed from double skinned roll formed aluminium with a polyurethane infill for insulation and acoustic benefits giving five times more insulating properties than a conventional steel door. The compact design of the Rollador creates extra space in your garage and on your driveway so is even ideal for larger vehicles. Available in eight stylish colours, the durable electroplated finish eliminates the need for painting ensuring your garage door continues to look good for years representing a sound investment for your home. New profiles have been designed to match with wood and UPVC wood effect windows. These new profiles have a laminated wood effect membrane applied to the outside face of the garage door. Colours available are Golden Oak Laminate and Mahogany Laminate. Each Rollador is made to fit your garage perfectly and once installed it has a very low maintenance requirement and comes complete with a twelve month guarantee on all manufactured parts for total peace of mind.



Aluminium Security Roller Shutter Systems

WP54 Compact Garage Door

Recommended usable size 3000mm wide x 3000mm high.

Ideal for garages with limited internal or external headroom, the Compact Garage Door neatly rolls up into housings that start from just 205mm (8").

The Compact is made from high quality foam filled 54mm aluminium lathes with a heavy duty bottom rail and the guide channels are brush lined to ensure a smooth and quiet operation. Safe and secure in operation, the Compact Garage Door is fitted with a safety beam which spans the width of the door opening as standard. If the beam is broken the door returns to a safe zone to avoid any accidents. The shutter is also fitted with an automatic locking system which ensures the door is secure when fully lowered. The door is operated via a market leading Somfy tubular motor, which includes a manual override and is operated via a remote controlled unit with courtesy light and internal push buttons. Two remote control handsets are provided and programmed as standard.



WP53 Extruded Safe

WP53 Curtain - 53mm x 14mm, 12kg/m².

Recommended usable size 5600mm wide x 2800mm high.

The WP53 double skinned extruded aluminium shutter has been designed for maximum performance with maximum security for larger openings up to 5600mm wide.

Thick double skinned extruded profiles with special shaping ensures tight coil sizes thus reducing box sizes to leave a visually attractive roller shutter system.

Constructed from an all-aluminium design the WP53 enhances any application it may be applied to whilst still retaining a high security defence against burglary.

Thick extruded guide rails and optional base rail foot complete this extremely effective door.



Aluminium Security Roller Shutter Systems

New Build Shutter System

New Build Shutter Design is very much part of European architecture and has been now for many years. With vandalism and burglary becoming a more common occurrence it is widely recognised that there is a need to install security shutters into the building's structure as opposed to an later as an afterthought.

The Abacus Shutters New Build Shutter System has been designed as an attractive roller shutter, which is concealed within the building fabric using special lintel and brickwork detail. The insulated shutter box constructed from UPVC honeycomb sections gives both thermal and acoustic benefits. With the roller shutter being totally concealed behind brickwork a truly attractive and secure system is achieved.

The Abacus Shutters Limited New Build Shutter System is best fitted to inward opening windows or doors but can be fitted to outward opening ones too. The New Build Shutter System can be adapted to suit wood, UPVC or aluminium windows with operation of the shutters normally being motorised using 240v tubular motors. Various switching arrangements from individual to group and zoned group control are available and can be tailored to suit most customer requirements.

All curtain profiles have been specially designed with security in mind and are the strongest available. There is a special locking system for all motorised shutters available which is classified to withstand severe pressure from leverage and has been awarded the European ER3 Security Rating.

Manufactured to customer's requirements the Abacus Shutters New Build Shutter System will enhance and compliment any development.



Sliding Folding Shutter Door System - Industrial

When the entrance to your premises is constantly in use, ease of access and security control can become an issue. Abacus Shutters Limited's sliding folding shutter door systems ensures that this issue doesn't become a problem. We have the solution to fit large openings, with a variety of fixtures and operations to suit all your business requirements.



Description: These doors are designed for use within industrial premises to provide the maximum vertical opening for large vehicles such as buses and aircraft whilst also providing a flexible horizontal opening that can be minimised to prevent heat escaping from the premises or cold air entering them.

Top Track: The top track supports the weight of the door and is formed from heavy gauge cold rolled steel strip. It is fixed to the opening's lintel with fabricated mild steel brackets where required and is galvanised or painted depending on the door specification and size.

Pickets: Pickets are formed from galvanised cold rolled steel strip and form the main framework for the door on the inside of the building. The top of each picket is supported from the top track with hardened steel grease sealed multi-ball roller. The bottom of each picket runs within the bottom track and gives the door its strength in high winds.

Leaves: The leaves, which are 300mm (12") wide as standard, are formed from cold rolled galvanised steel strip and are ribbed for aesthetic purpose and extra strength. The gauge varies to suit the size of the door. Smaller 150mm (6") and 225mm (9") leaves are also available to suit special applications and smaller openings.

Hinge Strip: The hinge strip is a capped, cold rolled galvanised steel outer channel which allows the leaves to hinge vertically and move with the picket section when the door is operated.



Sliding Folding Shutter Door System - Industrial

- Lattice:** The lattice is a unique shape for extra strength and is formed from heavy gauge cold rolled galvanised steel strip. The lattice is bolted onto the pickets and controls the sideways movement of the door and prevents the door flattening out in high winds.
- Bottom Track:** The standard bottom track, which is set into the floor, is manufactured from heavy gauge cold rolled steel strip and runs the full width of the door.
- Leading Edge:** The leading edge is for accommodating hasp and staples, locks, handles, etc. and stiffens up the front of each door. It is formed into a deep channel from heavy gauge galvanised steel strip.
- Soffits and Side Closures:** A heavy gauge galvanised steel strip is press baked to the required size and shape and fixed to the doors and doorjambes to give maximum security.
- Hardware:** Each door has a bow handle inside and out, and is fitted with a heavy-duty hasp and staple, which is normally fixed inside unless otherwise specified. The hasp and staple is to take the customer's own padlock for security purposes.
- Electrical Operation:** The operation is by 415 volt 3 phase geared electric motor with a manual disconnection for hand use during emergencies. The starter contains OPEN, STOP and CLOSE button facilities plus a safety thermal cut out switch. The shutter is driven by a continuous chain drive system running at top track level. **NB. A three phase isolator with neutral has to be sited by the client one metre from the opening prior to installation.**
- Servicing and Safety:** All doors should be serviced regularly especially those electrically operated. Our Service Department will contact you after the installation has been completed and advise you of our Abacus Shutters Limited Maintenance Schemes.
- Optional Extras:** Windows, powder coating to leaves only, standard BS/RAL colour range, electrical operation, electrical wiring from isolator, induction loops, safety beams, 150mm and 225mm leaves.



Sectional Overhead Doors

Sectional doors open vertically upwards, thereby creating space in front of and behind the opening. The door sections are parked directly underneath the ceiling, vertically above the structural opening, vertically up-and over or following the pitch of the roof. The exceptional breadth and depth of the range, thermal performance and certified safety make a sectional door convincing in every respect.

- Door Panels:** Specially designed insulated panels incorporating a capillary break to eliminate water ingress.
- Panel Finish:** Exterior: 0.5mm British Steel - HP200, Standard Colour, Galvanised or Powder Coated.
Interior: 0.4mm British Steel - Stucco Embossed, Polyester Coated or Galvanised.
- Panel Dimension:** Normal Panel Width: 530mm - 610mm. Normal Panel Thickness: 40mm - 50 mm.
- Insulation Value:** 50mm thick rigid polyurethane foam. A density of 45kg/m³ and a U-Value of 0.44w/m²K.
- Tracking System:** Cold rolled guide and angles made from heavy gauge pre-galvanised steel.
- Guide Rollers:** Manufactured from ball races on plated bright mild steel.
- Balance:** Tempered helical torsion springs on bright steel shaft, mounted by self-aligning sealed ball bearings.
- Hardware:** Carriers, hinges and reinforcing channel made from heavy gauge pre-galvanised steel.
- Door Seals:** Rubber weather seals to top and bottom sections. PVC seals to guides.
- Operation:** Either Manual, Hand Chain or Electric (415 volt, 3 phase geared motor with manual override disconnection for hand use. 3 push button control, limit switches and safety thermal cut-out as standard.)



Security Gates & Traffic/Parking Barriers



If external security is your concern then look no further than Abacus Shutters Limited.

Our cost effective and reliable security gates, parking barriers, pedestrian gates and car parking/traffic control equipment perfectly suit residential, commercial or industrial premises in London and Essex.

Our product range is designed to provide the best solutions for access control and include swing gates, sliding gates, traffic barriers, height restriction barriers and bollards to prevent unwanted access.

Our automation systems are designed primarily to provide high levels of security for its designated use and each system can be operated by numerous methods i.e. proximity reader, remote control, key pad etc. allowing ease of use.

If you are concerned about the lack of perimeter security in your home or business, or require more information, contact us for details on the range of gates and barriers in London and Essex we have available – you can call us on 0845 644 1225 to speak to our team.



Automatic and Manual Aluminium Glass Door Systems

Your business entrance makes a statement and reflects the corporate identity of your enterprise. Even before customers enter they begin to make up their minds as to whether they want to get to know your goods and services better, before you even have a chance to convince them of your products.

Give your business entrance a modern, appealing look, and above all, turn it into an open door to your customers. Our specialist Automatic Door Division removes the technical complexity of fitting automatic doors at your premises, offering a dependable trouble-free service that ensures the correct combination of quality, usability, safety and convenience, incorporating the most up-to-date building regulations and DDA requirements.

Abacus Shutters Limited offer Automatic or Manual Swing, Sliding, Folding or Revolving Doors and Operators that are aesthetically pleasing, reliable and require minimal maintenance. Alongside our single and bi-parting operators, we can also offer double operators.



We provide a comprehensive range of manual or automatic products including:

- **Swing Door Operators** – These are the most flexible unit available on the market today and they are the ideal solution for both existing and new build applications. The Swing Operator can be supplied and installed as a single or double unit (in-head or face-fixed) and has the following features: Reliable, Cost Effective, Easy to install, Low Energy, Low Maintenance and Integrates with a wide range of accessories.
- **Sliding Door Operators** – Where requirements dictate larger glazed areas. The Sliding Operator can be supplied and installed as a single or double unit (in-head or face-fixed) and has the following features: Reliable, Low Maintenance and Integrates with a wide range of accessories.
- **Folding Packages** - Similar to the Swing systems, can be incorporated into most premises with little building works.
- **Revolving Door Packages** – Normally are within the larger upgrading projects, But with the latest security issues we all face today. Can be retro-fitted to form a safer working environment also supporting any climate controlled building management system.
- **Activation & Accessories** - Photocells, Infrared Movement Detectors, Floor-mounted Induction Loops, Push Pads, Card Readers, Hand-held Radio Transmitters and many more.

Automatic and Manual Aluminium Glass Door Systems

The benefits of Abacus Shutters Limited include:

Safety: Abacus Shutters Limited offer solutions to meet all safety standards and ever changing legislation. Our doors and automatic operators satisfy all the requirements of the Disability Discrimination Act and Building Regulations Part M and offer simple effective access for all, in a safe environment.

Design: Our doors & operators are designed not only to offer optimal service but also to seamlessly blend in with your building. The sign of a good automatic door system is that it goes unnoticed – whatever the architecture, we ensure that our installation become one with the surroundings. From the Corner shop to the most modern bespoke buildings of the future.

Quality: Our doors & operators are designed for both longevity and durability. We use only the finest quality materials and all our products are rigorously tested. We constantly strive to ensure you are totally satisfied with your completed installation.

Service & Maintenance: Option 1: An annual Service and Maintenance Agreement to ensure all your automatic doors continue to comply with the latest legislation and remain in optimum working condition to BS 7036.

Option 2: Consisting of two visits per year. This normally is recommended is the traffic flow is higher than normal this package provides basic adjustment, ensures doors are working correctly and rectifies any minor faults in closing speeds, sensors back-check and latching, and checks compliance of Automatic Doors with BS7036.



Steel Hinged Security Door Sets

Our FD & FDA steel hinged security door sets are highly versatile and cost effective flush steel door sets that can be used for a variety of commercial applications. They are suitable for use as a fire escape, personnel access or in a number of industrial applications such as bin stores, electrical cupboards and plant rooms.

These doors are custom manufactured in 10mm increments for single openings 690mm to 1390mm and double openings 1290mm to 2600mm, at heights up to 2900mm.

Standard Stock sizes are held in 50mm increments for single openings 690mm to 1390mm and double openings 1290mm to 2600mm, at a standard height of 2100mm.

Leaf construction

- Material - 1.2 mm corrosion resistant zintec/aluzinc sheets as standard
- Infill - Self-supporting resin-impregnated honeycomb core as standard, with the option of mineral wool.
- Construction - A non-welded construction from two skins of zintec folded around a rigid core.
- Finish - The doors can be polyester powder coated any standard RAL/BS4800 colour.

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.

Threshold

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

Finish

- Pre-primed steel (approximating to BS10A05 Goosewing Grey) requiring site painting.
- Optional: Polyester Powder Coating from standard colour range, PVC laminate from standard range, Woodgrain PVC laminate, Stainless steel, brushed, polished or patterned.

Optional door hardware components

- Locks, Levers, Thresholds, Perimeter Seals, Hydraulic Closers, Door Stays, Vision Panels, Louvre, Panic Bar/Panic Bolt Release Systems, Kick Plates, Chequer Plate, Magnetic Contacts, Smoke Detector Release Unit



Steel Hinged Security Door Sets - High Security & Blast Resistant – SD2, SD3, SD4 & SD5

Our High Security and Blast Resistant Security Doors offer a physical barrier to deter and delay intruders for a specified period of time. They are designed to protect medium to high risk properties from experienced attempts at forced entry, regardless of noise, using heavy hand and battery tools including club hammer, cordless drill, cold chisel and axe. These doors are tested to ENV1627 Class 2-5 for security and BSEN13124-2 for blast resistance. This is security with aesthetics.

These doors are custom manufactured in 10mm increments for single openings 690mm to 1390mm and double openings 1290mm to 2600mm, at heights up to 2900mm.

Testing

Security

Tested to prEN 1627 - 2007/09. Security 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.

Blast

SD4 doors have been tested and passed EXR2 of BS EN 13124-2, the Explosion Resistance standard, with explosive blasts using plastic explosives.

Leaf construction

- Material - 1.5 mm corrosion resistant zintec/aluzinc sheets as standard. Stainless steel also available
- Infill - Solid timber cored with internal stainless steel anti-attack skin.
- Construction - Door blade manufactured from two 1.5mm sheets lock formed together, by bonding two steel skins around a rigid core. A total steel armour thickness of 4-5mm.
- Astragal - Blade fitted with an anti-jemmy astragal.
- Finish - The doors can be polyester powder coated any standard RAL/BS4800 colour.



Frame Construction

- Folded and welded from 1.6mm 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 hinges for additional security.

Secure Locking

- A centre High Security WAAA1100 Sash lock 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.
- Alternatively high security multi-point panic hardware for fire escapes.

Threshold

- Standard: 15mm rebated threshold.
- Optional: 5mm driveable (DDA compliant) or 12-5mm 564A Aluminium (DDA compliant).



Steel Hinged Door Set - Fire Resistant / Fire Exit

These single and double leaf doors are fitted into compartment walls to confine an outbreak of fire to the smallest area. They are designed to resist the intense heat applied to one side of the door without excessive distortion, and prevent the ignition of combustible materials in the adjoining area.

Approval

The manufacturing process of these doors is quality controlled at all stages controlled at all stages in line with ISO 9001:2000 Quality Standard and is independently audited by the LPCB. The door construction has been tested to 4 hour fire rated to BS 476 Parts 20 & 22:1987 and BS EN 1634-1:2008 and holds appropriate FRS and Boddycote Warrington Assessments obtaining the following results:

- **FD60:** Providing protection up to One Hour (60 minutes) in traditional unlatched design.
- **FD120:** Providing protection up to Two Hours (120 minutes) with a latched design.
- **FD240:** Providing protection up to Four Hours (240 minutes) with a latched design.

Leaf construction

- Material - 1.2 mm corrosion resistant zintec/aluzinc sheets as standard
- Infill - Self-supporting resin-impregnated honeycomb core as standard, with the option of mineral wool.
- Construction - A non-welded construction from two skins of zintec folded around a rigid core.
- Finish - The doors can be polyester powder coated any Standard RAL or BS4800 colour.

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 2 no. security dog bolts.

Threshold

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

Optional door hardware components

- Locks, Levers, Thresholds, Perimeter Seals, Hydraulic Closers, Door Stays, Vision Panels, Louvre, Panic Bar/Panic Bolt Release Systems, Kick Plates, Chequer Plate, Magnetic Contacts, Smoke Detector Release Unit.



BEFORE



AFTER



High Speed Roll-Up Door/Curtain – MIO-PAT

High speed doors can easily and simply be used for the most diverse environments, where they ensure safety and efficiency of operation while cutting energy and maintenance costs.

Overview

The PAT 100 is a reliable, general purpose High Speed Door. This Door is used in a multitude of different environments. This Door is robust, competitively priced and comes with interchangeable sections which, in the event of curtain damage, can easily be replaced. There is a fully transparent version, it can also be offered without any vision, but, as standard, the centre panel is always transparent. Rated to Wind Load UNI EN 12424 CLASS 1 (standard External Rating), this information is on the Door CE plate, as required by New Regulations.

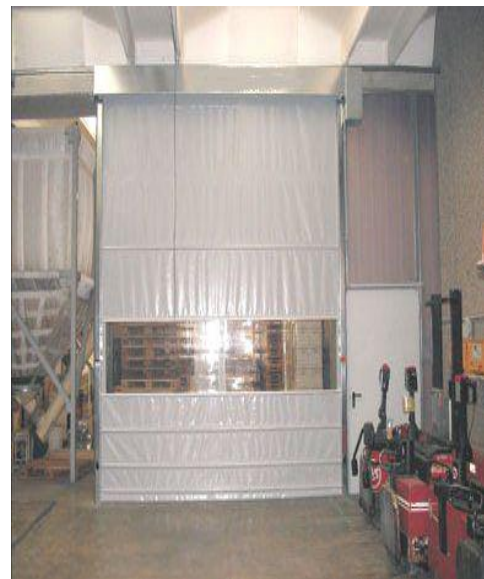
There is a choice of over twenty curtain colours. As with all our products, a safety edge and two sets of photocells come as standard. Automatic closing time is adjustable and a full range of opening systems, Loops, Radar, Radio Control, etc. are available.



PAT 100 standard package includes:

- Self-supporting Galvanised Structure with Hood and Motor Cover.
- Interchangeable Curtain Panel Sections.
- One Full Vision Section.
- Manual emergency opening by pull cord and rod at ground level
- Standard Control Panel IP55 (Up Button & Red Stop/Emergency Button)
- Wind Load (New Regulation) UNI EN 12424 CLASS 1 (External Rating)
- Two pairs of Transmitter/Receiver type Safety Photocells. (IP55)
- Electro-Optical Bottom Safety Edge
- Digital Cycle Counter
- New Wiring Installation Kit (Conduit & Cable)
- Please ask for details of the PAT pneumatic version for explosive environments

High Speed Doors are not generally intended for Pedestrian Use. Where Pedestrians do use these Doors, additional Safety Measures must be taken. Additional Safety Photocells (or another acceptable sensing-device) positioned 0.9mm from the door, must be incorporated. Please see [HSE OC 314/17](#) for details.



High Speed Fold-Up Door/Curtain – MIO-PIC 50/75

The high speed fold-up door is suitable for applications where high speed opening and closing times are required. This type of door is suited for larger size openings and is designed for prolonged everyday use both internally and externally with minimal maintenance.

Overview

PIC50 - Maximum Dimensions 8000w x 6000h

PIC75 - Maximum Dimensions 6000w x 5000h

The PIC 50/75 High Speed Fold-up door is the answer where large openings are subject to windy conditions.

Thanks to the speed of opening and closing and the seal qualities, the PIC doors reduce heat loss and therefore improve working conditions, while making significant savings on heating costs.

Vertical movement is actuated by lift belts, which progressively pack the sections at the top of the door. Constructed with the best materials and electronic components available, the PIC doors are tested to resist the harshest treatment in industrial and commercial applications.

The PIC 75 is simply a modified PIC 50 but with a forward facing motor for where side-room at high level is limited.

The PIC range of Fold-up High Speed Doors is in fact the original type of fast door that has been sold for many years. They still remain the most popular model for applications on external openings.

PIC 50 Standard Package includes:

- Self-supporting Galvanised Structure with Hood and Motor Cover.
- One row of Vision Windows.
- Manual emergency opening by pull cord and rod at ground level
- Standard Control Panel IP55 (Up Button & Red Stop/Emergency Button)
- Two pairs of Transmitter/Receiver type Safety Photocells. (IP55)
- Curtain slides with one pair of above photocells internally fitted.
- Wind Load (New Regulation) UNI EN 12424
- CLASS 1 (External Rating)
- Bottom Safety Edge
- Digital Cycle Counter
- New Wiring Installation Kit (Conduit & Cables)

High Speed Doors are not generally intended for Pedestrian Use. Where Pedestrians do use these Doors, additional Safety Measures must be taken. Additional Safety Photocells (or another acceptable sensing-device) positioned 0.9mm from the door, must be incorporated. Please see [HSE OC 314/17](#) for details.



Collapsible Lattice Gates

These gates are primarily designed for use by the retail industry, where confined headroom within the building prevents the use of conventional security roller shutters. They provide the general public with maximum visibility whilst protecting the goods on display from theft. They are also ideal for Doctors Surgeries, Pharmacies and Residential Properties.

CX1 lattice gate system

CX1 is an affordable retractable security grille particularly suitable for domestic properties. The grille provides a strong physical barrier for protection of windows and doors including patio doors and is an effective visual deterrent against attack.

Product Overview:

- Traditional diamond shaped lattice
- Unique 'bottom rolling' design fixed on all 4 sides
- Available as a single grille (locking to one side) or double grille (central lock post)
- For maximum accessibility in doorways – lift up and lift out bottom track options are available as well as swivel return to hinge back the stack of the grille when open



CX2 lattice gate system – LPCB security level 1

The market leading CX2 is a certified retractable security grille for protection of windows and doors in domestic and commercial properties. Independently attack tested, CX2 is the first choice when an insurance rated grille is required. Providing peace of mind against burglary and intruders at home or work, fitting the CX2 may also reduce insurance premiums.

Certification:

The CX2 has been independently tested by the Loss Prevention Certification Board (LPCB) to the industry standard of LPS 1175 Security Rating 1 (within the certified range) and is a Secured by Design 'Police Preferred Specification'.



Product Overview:

- Patented Crosslinx* Rivetless System for added strength provides a much stronger and more attractive alternative to rivets
- Secure and easy to close patented multi-point slam shut lock ensures outstanding protection and ease of use.
- Anti-jemmy security strip protecting the lock from attack with a crowbar or other lever
- Attractive curved lattice
- Unique 'top hung' design fixed on all 4 sides
- Available as a single grille (locking to one side) or double grille (central lock post)
- For maximum accessibility in doorways – lift up and lift out bottom track options are available as well as swivel return to hinge back the stack of the grille when open.

Collapsible Lattice Gates

CX3 lattice gate system

The ultimate grille for strength and flexibility of installation, the CX3 is a retractable security grille particularly suitable for security of windows and doors in commercial and industrial premises and high risk environments.

Product Overview:

- Traditional diamond shaped lattice
- Bottom rolling design with the top and bottom tracks integrated within the grille for extra strength
- No top or bottom fixings are required, making the grille practically useful when installing into uneven openings.
- Available as a single grille (locking to one side) or double grille (central lock post)
- For maximum accessibility in doorways – lift up and lift out bottom track options are available as well as swivel return to hinge back the stack of the grille when open



Exterior view of an internally fitted CX2 bi-parting lattice gate system with lift-up bottom track.



Telescopic Posts

The Rhino Security range of telescopic security posts provides a simple, secure and cost effective method of protecting premises and vehicles. Strategically located in forecourts, car parks or shop fronts a Rhino post is a true deterrent to thieves whilst remaining relatively aesthetically pleasing. The Rhino post is simply raised vertically out of the ground and locked in seconds into the upright position using its integral high security push button lock. When not in use the post slides discreetly into its host tube until just below ground level and the steel flap is closed flush. The Rhino range of telescopic bollards is manufactured in steel, stainless steel and Rhinocast polymer and is available in a wide range of colours and finishes. The main components are precision manufactured by computer guided laser for greater accuracy. Each post is assembled by hand and inspected at all stages of manufacture to ensure consistent quality. The 10 pin high security push button lock allows for over 5 million key combinations with master key facilities also available. All steel bollards are hot dipped galvanized to BSEN ISO 1461 (1999) and can be powder coated to most British Standard or RAL colours. Stainless steel bollards are manufactured from 316L grade austenitic steel.



Steel Hoop Barriers

Rhino steel hoop barriers are supplied either, fixed or detachable. A detachable steel barrier may be part lifted to act as a gate allowing quick vehicle access, or can be completely removed. It is an ideal way of securing large perimeters, allowing pedestrian access whilst denying vehicle entry. Rhino steel hoop barriers are supplied in either 60.3, 76.1 or 88.9mm diameter sections with an overall span of 1400mm and are supplied fully galvanized to BSEN ISO 1461 (1999). They can be powder coated to most British Standard or RAL colours.



PVC Strip Curtains

Flexible PVC strip curtains provide an easy and cost effective method of reducing heat loss or retaining chilled air in areas where control of the environment is important.

PVC strip curtains are suitable for use in a wide variety of applications, the most common being:

- External doorways commonly with heavy traffic
- Internal doorways commonly with pedestrianized traffic
- Welding booths - both mobile and fixed
- Sound booths
- Dust, spray and/or fume barriers
- Temperature controlled lorries
- Temporary or permanent partitioning

The reason that PVC curtains are used in such areas is that they have such a wide range of benefits - the most common being:

- Reducing expensive fuel bills
- Improving workplace safety
- Improving working environment
- Retaining heat and chilled air
- Reducing noise levels
- Reducing dust and fumes
- Helping to exclude birds and vermin



Burglar Bars

Burglar Bars are a very cost effective method of minimising a forced entry into many premises. Installed over windows internally, they form a physical barrier that is a deterrent to most burglars.

Benefits

- High security - 20mm solid steel bars, ideal for vulnerable premises, are designed to rotate to prevent attack from tools, such as hack saws.
- No Planning Permission required
- No welding - reducing rust and increasing strength.
- Low maintenance - no moving parts to go wrong.
- Durable - professional in-house polyester powder coating to gives a long lasting finish
- Flexible installation - tailor made to specific requirements they can be fitted to the reveal of a window or face fixed onto the surface of the reveal. They can also be fitted vertically or horizontally.
- Wide choice of colours



Sizes

Abacus Shutters Limited Anti-Burglar Bars are available in the following sizes:

	Minimum	Maximum
Width	100mm	2600mm
Height	200mm	3000mm

For bars exceeding 1 metre a middle box section is required.

