### Panic Hardware - Introduction

# Designed to provide immediate escape, first time, every time.

When lives may depend on an exit device we feel we have a responsibility to design and test our products to exceed all current performance and safety standards, ensuring they will operate first time, every time.

The Briton 560, 570 and 580 Series has been designed to offer modular solutions to panic exit applications which require multi-point latching with a superior and refined aesthetic, designed and manufactured in Italy. The Briton 376 Series is designed to provide immediate escape and still incorporates all the features and benefits expected from an exit device that is branded Briton. Our Von Duprin exit devices provide solutions for very heavy duty applications. The robust construction not only satisfies the requirements of EN 1125 for CE marking but has passed the stringent testing necessary for approval to ANSI A156.3 and UL listing.

The Briton and Von Duprin ranges, comprising the following variants, are fully compliant with EN 1125 or EN 179, are CE marked to the latest standards and come complete with a 5 year guarantee:

- Vertical panic bolts
- Reversible rim panic latches
- Mortice panic nightlatches
- Push pad vertical bolts
- Reversible push pad rim panic latches
- Push pad mortice nightlatches
- Motorised touch bar panic exit solutions

### Performance levels

Our multi-level approach to panic and emergency hardware ensures there is a solution for all projects, door applications and budgets.





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### **Types of exit hardware**

Whilst there are several forms of exit device permitted, the basic premise remains the same in that the device must provide immediate escape with a single operation and not require a key.

- A Touch bar device
- В Push bar device
- С Touch bar device used to operate a mortice nightlatch
- D Push bar device with multi point latching
- E Touch bar device with multi point latching
- Push pad device with vertical F bolts
- Push pad device with rim latch G
- н Emergency exit solutions may also be achieved using escape locks and lever furniture. Please see the lockcase section of this catalogue for further information.

















# Panic Hardware - Introduction

### Which system to choose

Having first determined whether the application requires a panic or emergency exit solution (see page 151) there are a number of additional considerations which will determine the most appropriate product. These could include:

- Aesthetic considerations push bar or touch bar (see opposite) .
- Designed to satisfy EN standards •
- Single point or multi-point latching for security (see below)
- Frequency of use may require a heavy duty solution .
- Additional features such as hold-back or alarm connection
- Optional outside access device for external entry

#### Single or multi-point security

Both panic and emergency exit solutions are available as rim devices providing a single central latch point or with latching points at the top and bottom of the door. The modular nature of the Briton 560 - 570 Series allows you to build a solution which is tailored specifically to the needs of your door providing up to 4 latching points on a single door.









# Panic Hardware - Legislation

### Panic or Emergency?

It is mandatory for all exit devices to comply with the latest revisions of EN 1125 or EN 179 and CE marking.

All Briton 560, 570, 580 and 376 Series exit devices have been tested and certified to prove compliance with the latest standards EN 1125 & EN 179 which govern the application of panic and emergency exit hardware, but which standard applies to which application, and what determines which one I need?

### Panic Applications - Conforming to EN 1125

A 'panic' application is where the exit door is used by members of the public and must provide "safe and effective escape through the doorway with minimum effort and without prior knowledge of operation".

Typical applications include:

- Shops
- Schools
- Hospitals
- Theatres and Cinemas

According to EN1125 the length of the panic exit device should be as near as possible the effective width of the opening and not less than 60% of the width of the opening.

### **Emergency Applications - Conforming to EN 179**

An 'emergency' application is where the exit door is in a low occupancy environment and will only be used by trained personnel, such as in a place of work never accessed by the public or people unfamiliar with the escape drill.

Typical applications include:

- Offices
- Private Flats & Apartments
- Store Rooms & Boiler Rooms

Products used in emergency applications require only a single point of operation e.g. pushpads or levers.





### EN 1125 & EN 179

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Physical characteristics of type, operation and performance of hardware for use on panic and emergency exit doors is tested/assessed in accordance with EN 1125 and EN 179. This produces a 10 digit classification code which allows comparison between different products that conform to the standard. The testing and assessment criteria are the same for both standards, with the exception of digit 9 which identifies different types of operation between the 2 standards. This is shown in the example below.

	Scope	Grades				
Category of use	Defines frequency of use	Grade 3 - High frequency of use by public or others with little incentive to take care and with a high chance of misuse - eg. public doors				
Durability	Performance testing of the product	Grade 6 - 100 00 test cycles				
	through various cycle tests.	Grade 7 - 200,00 test cycles				
Door mass &	The mass of the door that the	Grade 5 - Doors up to 100kg				
closing force	product can suitably be used on	Grade 6 - Doors up to 200kg Grade 7 - Doors over 200kg				
Suitability for	Suitability for use on fire/	Grade 0 - Not suitable for fire/smoke door assemblies				
fire/smoke doors	smoke door assemblies having successfully completed a fire test to EN 1634.	Grade A- Suitable for smoke door assemblies Grade B - Suitable for fire/smoke door assemblies				
Safety	Safety category for the product type	Grade 1 - All panic and emergency exit devices have a critical safety function. Only Grade 1 is identified.				
Corrosion	Level of corrosion resistance to	Grade 3 - High resistance 96 hour salt spray at -20°C to				
resistance	EN 1670 Neutral Salt Spray test and operation of the product at extreme temperatures	+80°C Grade 4 - Very high resistance 240 hours salt spray at -20°C to +80°C				
Security	Tests the abilitly to release under	Grade 2 - Up to 1000N (EN 1125 & EN 179)				
	Side load	Grade 3 - Up to 2000N (EN 179 only)				
		Grade 5 - Up to 5000N (EN 179 only)				
Projection of	Classifies how far the operating	Class 1 - Projection up to 150mm				
device	mechanism projects from the door face	Class 2 - Projection up to 100mm				
Type of	Defines the type of operation	EN 1125 Type A - 'push bar' operation				
operation	Note; EN 1125 and EN 179 have	Type B - 'touch bar' operation				
	specific operating types	EN 179 Type A - 'lever handle' operation Type B - 'push pad' operation				
Field of door	Configuration of doors which the	Class A - Single/double door, active or inactive leaf				
application	unit will satisfy	Class B - Single door only				
		Class C - Double door only, inactive leaf only				
		Class – Single door, inward opening (EN 1/9 Only)				

# Panic Hardware - Testing CE

It is mandatory for manufacturers to mark all panic and emergency exit devices with the new CE classification to prove compliance with the latest standards.

To be sure exit hardware meets the CE mark criteria it should meet all of the requirements listed below:

1. - CE certificates are readily available for inspection.

2. - Products are regularly tested within an accredited testing facility as part of an ongoing audit test programme.

3. - Products are manufactured on a production line that has been inspected and accredited under FPC (Factory Process Control) conditions, a further requirement of the CE marking process. This ensures that correctly specified materials and manufacturing methods are consistently employed.

4. A Declaration of Performance is available providing information on the performance of the product.





Rigorous testing is continually being carried out on the Briton range of exit hardware providing peace of mind for specifiers, distributors, installers and users.

### Low operating force

Repeatedly tested to operate at 50% lower than the standard requirement, ensuring that the door can be operated with minimum force, for example by small children, the elderly and people with special needs.

simulate a group of people pushing against the door. The operating force on the device with this weight should not exceed 220 Newtons.

### Abusing the push bar

The push bar is attacked with a force equivalent to a 16 stone man (1000 Newtons) pulling/pushing it in all directions and standing on it, after which the bar must still operate.

### Cycle testing

All Briton panic devices exceed the highest requirement of 200,000 cycles, ensuring durability for everyday use.

### The finger trap test

To reduce the risk of trapping fingers and/or the blocking of the panic device, any gap shall not trap a test rod of 10mm dia. at any position of the bar travel during the operation of the panic device.

### Abusing the bolt

Testing the bolt strength involves the equivalent of the combined strength of 4 people trying to pull the bolt away from the door.

An attempted break-in is simulated to test the security of the bolt, force is applied to the anti-thrust device as if the bolt were being 'jemmied' out of its socket.



does not relate to the finish.

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# Testing and CE Marking

- Two tests are undertaken. The first is to operate the door with a maximum force of 80 Newtons.
- The second test simulates a panic situation whereby the door is put under 1000 Newton pressure to





A test which measures how suitable the exit device is for varying environmental conditions. All Briton exit hardware has been tested to EN 1670 Building Corrosion Requirements and has achieved at least grade 3 (high resistance) and the Briton 560-570 Series grade 4 (very high resistance). This ensures the product will function correctly in wet, polluted and exterior environments. Note, EN 1670 test



### Panic Hardware - Overview & Selector

# A guide to specifying panic and emergency exit hardware

### Which system to choose

Having first determined whether the application requires a panic or emergency exit solution there are number of additional considerations which will determine the most appropriate product. These could include:

	LEVEL 4 Panic Exit	LEVEL 3 Panic Exit	LEVEL 3 Panic Exit		LEVEL 1 Panic Exit	LEVEL 1 Panic Exit	LEVEL 2 Emergency Exit	LEVEL 1 Emergency Exit	LEVEL 1 Emergency Exit	
Series	Briton 571EL	Briton 570 Series	Briton 560 Series		Briton 376	Briton 378	Briton 581	Briton 372	Briton 1438	
Description	Modular panic exit hardware system	Modular panic exit hardware system	Modular panic exit hardware system	R	egular panic exit hardware	Regular panic exit hardware	Modular emergency exit hardware system	Regular emergency exit hardware	Regular emergency exit hardware	
Touch bar operation										
Push bar operation										
Push pad operation									•	
CE marked to EN 1125										
CE marked to EN 179										
Approved to ANSI A156.3										
Rim latch device										
Vertical bolt device										
Mortice nightlatch option										
Electric latch retraction										
No. of latching points	1 to 5	1 to 5	1 to 5		2	1	1 to 5	2	1	
No. of test cycles	200,000	200,000	200,000		200,000	200,000	200,000	200,000	200,000	
Certified for use on fire doors	Suitable for use on timber fire doors up to 2hr*				Suitable for use on timber fire doors up to 2hr**					
Suitable for single doors	•	•	•			•		•	•	
Suitable for double doors					•	•	•			
Typical applications	Medium to high end commercial applications	Medium to high end commercial applications	Medium to high end commercial applications	G	General contract applications	General contract applications	Medium to high end commercial applications	General contract applications	General contract applications	

\* Please note: when used in conjunction with a mortice lock, application is limited to a 1 hour fire rating

\*\* Please note: when fitted with an outside access device (OAD) or when used in conjunction with a mortice lock, application is limited to a 1 hour fire rating

- Aesthetic considerations push bar or touch bar
- Designed to satisfy ANSI or EN standards
- Single point or multi-point latching for security
- Frequency of use may require a heavy duty solution
- Additional features such as hold-back or alarm connection
- Use of electric latch retraction to allow the use of electronic access control for external access
- Outside access device for external entry by key or digital code