

# A GUIDE TO SAFES

## TYPES, SPECIFICATIONS, AND INSTALLATION

PUBLISHED BY AB ROOMS



### SAFES DEMYSTIFIED

Specifications for safes include some or all of the following parameters, depending on site and requirement:

- burglar resistance
- fire resistance
- environmental resistance - keeping contents in the correct condition
- type of lock – examples include key, combination, time, electronic, biometric
- location – examples - free-standing, floor, wall, concealed

**ABR guides** - An occasional series of guides both to the regulations and safety considerations which are fundamental to certain aspects of our industry – fire doors and door locks for example – and to particular types of products, such as vaults and safes.

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## WHY?

There are various categories of safes and secure storage units within the European safe grading structure - Grade VI safes and above give the greatest resistance to burglary for a freestanding safe as defined by EN1143-1, or EN1143-2. These are the European standards for safes including ATM, deposits and strongrooms.

Conformity to these defined standards is rigorously tested at a handful of test facilities throughout Europe, but units tested by a member of the European Fire and Security Group are considered to be the benchmark.

The reason for manufacturers to test and receive accreditation for their products is not only to make sure that people and companies have protection against threats, but also, and importantly, so an insurer can determine what level of risk can be underwritten. Example - a Euro Grade 1 safe will be given an overnight cash cover value of £10k or a valuable items cover figure of £100k.. These figures are then used by the insurance industry to assume appropriate levels of risk when items of value are placed into a safe.

### Levels are currently set as follows:

GRADE	CASH RATING	VALUABLES RATING
0	£6K	£60K
I	£10K	£100K
II	£17.5K	£175K
III	£35K	£350K
IV	£60K	£600K
V	£100K	£1M
VI	£150K	£1.5M
VII	£250K	£2.5M

Safes predominantly intended for residential use are tested in accordance with EN14450 and rated levels S1 and S2.

Although insurers may vary, the guideline limits for S1 and S2 are:

GRADE	CASH RATING	VALUABLES RATING
S1	£2K	£20K
S2	£4K	£40K

Vulnerability is also a matter of whether or not safes are hidden or visible. Some safes are meant to be on show, others should be not only invisible but difficult to find.

### Examples are:

	COMPLETELY HIDDEN	PARTIALLY CONCEALED	IN PLAIN SIGHT	ON SHOW	FIRE VUNERABILITY
Gun safes*	■	■			
Office and related documents			■		high
Data / digital			■		high
Valuables – paper based	■	■	■		high
Valuables – other*	■	■	■		
Watch safes		■	■	■	
Deposit facilities		■	■		

\*practicality is key here as with many other examples - if the safe is too much trouble to use, or is not immediately to hand, then the goods are not always placed inside...



## THE CRITICAL FACTORS

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- required level of security = how valuable the contents, or to what extent do they need to be protected [example – drug cabinets in medical centres]
- usage – is the safe in daily use or only periodically
- and what sort of use - is this mostly about putting items away safely?
- the site – historic building? garden shed? wardrobe? yacht? office? retail outlet?
- what internal fittings are necessary – to what extent, for example, will the contents need to be cushioned against contact with hard surfaces
- required level of protection against heat, and/or dust, moisture, magnetic fields
- what is the presumed level of risk, that is, what is the location, generally, and how accessible is the site

### **These factors determine [for example]:**

- type and size of safe
- type of construction
- type of door and type of bolts
- the site
- how the safe is held in place

The key thing is to define what needs to be protected – cash, jewellery, valuables, documents, controlled drugs, bank statements and information, digital media, high tech equipment and so on. The requirements and the circumstances dictate the type of safe. Many are highly specialised and all must meet very specific criteria, including burglary and fire resistance, and all must be selected and installed to the insurer's satisfaction. An accredited Eurosafe supplier will match the safe to the risk, that is, the use to the approximate value of the contents.

**Always obtain confirmation of indemnity levels from your insurer before installing any safe.**

## SPECIFIC ISSUES

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### HEAT

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Where this is a concern, units need to be to a standard which determines the ability of data and document safes to withstand prolonged intense heat and impact damage. Paper ignites at 180° and in this respect is less critical. But data safes should be designed to maintain an internal temperature no greater than 52° even when the outside temperature is 1000°+. Above that temperature all information is lost. Safes that protect computer media need further protection against dust, moisture and magnetic fields.

### DEPOSIT FACILITIES

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Types of safe and cash handling facilities which mean that cash and other items can be secured without opening the safe at all – such as posting slots, capsule deposits, and deposit drawers. Pneumatic ‘Airtube’ type systems are of particular benefit in commercial applications because the deposit capsule is taken from the till area to a remote secure area without any risk to the staff who would otherwise have to carry cash across the shop floor.

### LOCKS

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Depends entirely on the overall security requirement. But even on the lower grade safes there should be heavy duty locking bolts which are locked by a Class 1 lock - key or electronic – and protected by hardened steel over the vital locking area. In some cases it is recommended that there should be an anti-explosive relocking device to protect against severe forced attack. The higher the security level of a safe the more protection that is afforded to it, glass plates connected to relocking devices, tougher barrier materials and drill deflector shields are just some of the defences available.

### INSTALLATION

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It may sound rather obvious, but the best safe in the world is as effective as a unlocked drawer in a wooden desk if the safe is not sited and installed properly. The engineer’s job at this point is to evaluate the risk and to work out how someone might get at the safe, and open or remove it. This determines how the safe is to be sited and secured. For example, bolting a gun safe to an internal wall may meet the police minimum requirement but is unlikely to offer any deterrent against forced removal. And if items are in frequent use – examples might include jewellery and watches – then having the safe in an inaccessible place might not work that well. In such instances, the safes don’t get used as they should – it’s all too much bother. The ideal therefore would be to site the safe where the owner can get it quickly and easily but without compromising security.

### RECONDITIONED SAFES

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A used safe which has been correctly reconditioned by a reputable safe engineer will be fine – all such work must be done to BS 7582:2005 [Code of Practice for reconditioning used safes]. All the security mechanisms are stripped down and serviced, with parts replaced as necessary, all locks are changed and in many cases upgraded, new keys are cut and combination sequences reconfigured. Safes are likely to be re-sprayed once the integrity of the container has been verified.

### EUROSAFE

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Eurosafe is a Europe-wide organisation which promotes accepted standards for safes and security containers. Members must adhere to the organisation’s exceptionally strict Code of Practice, which ensures that buyers are properly advised, fully supported, and that the safes or other security containers are fully endorsed by their insurers. The Code of Practice and list of UK members are to be found on Eurosafe’s website – [www.eurosafe.org](http://www.eurosafe.org)



LOCK & SAFE ENGINEERS

**AB ROOMS** Specialists in safes and vaults, in keys and locks, in access control, and all associated technical and engineering applications including commercial and home security systems and upgrades, and cash handling.

A. B. Rooms & Son Limited, 52 Abbey Street, Hull HU9 1LQ T: 01482 320260 E: [enquiries@abrooms.co.uk](mailto:enquiries@abrooms.co.uk) W: [abrooms.co.uk](http://abrooms.co.uk)