

## **HOW TO PURCHASE A NEW OR USED SAFE**

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Are you considering the purchase of a new or used fire or burglary safe? Here is some information that might make the process a little less difficult and help clear up any misconceptions or mysteries.

### **SAFES**

Purchasing a safe is a big decision in more ways than one. Things to be considered when considering a safe purchase are:

1. What are you going to use the safe to protect? Records, Computer media, Valuables, Cash?
2. What hazards are you trying to protect against. Fire, Burglary or both?
3. What is the expected total value of the items you want to protect? Include in this figure any future needs.
5. Does your insurance company have a minimum level of security or safe rating requirement for insured valuables?
6. Where will the safe be located? What is the maximum weight that the floor will safely support in that location?
7. How much space do you have available to locate the safe in? What obstructions to door opening are in that area?
8. What is the volume of the items you wish to protect?
9. What are you willing to spend to achieve the level of protection required?

Special types of safes:

There are several types of safes that are designed for specific purposes. some of these are:

1. Depository safes, which are designed for temporary storage of cash in mercantile establishments. These usually allow deposits into the safe by anyone but require two persons or management to open and remove the contents.
2. Cash handlers, which are designed to dispense cash to check-out clerks, keep track of these type of transactions and limit access to the contents to management or bank courier services.
4. Jewellers safes, are designed for maximum protection of high value items against burglary and or fire.
5. ATM safes, which are similar to the cash handlers and operate for withdrawals by the public, as in the all too familiar ATM's which are common at banks and supermarkets and sometimes located in other public places.
6. Burglary resistant safes, chests and vaults, which come in all different sizes and ratings and

are designed to protect cash and valuables from burglary and sometimes provide holdup and fire protection as well.

7. Fire or record safes, which are designed to protect valuable business and personal records against fire.

8. Media fire safes, designed for the protection of specialized computer media.

9. Gun safes are designed to protect firearms against theft and sometimes also include a fire resistant lining to provide limited protection against the threat of fire. They range in price from \$600.00 to upwards of \$2000.00 depending on rating, capacity and features.

10. Government or "GSA" safes and approved fire file cabinets. These are designed to protect sensitive or classified documents and materials from fire and limit access to authorized personnel. GSA safes are also used to protect cash and valuables in post offices and other government agencies.

Below I will discuss the common types and ratings of safes that are of use to individuals and businesses.

## **Ratings**

Safes are classified, tested and rated in accordance with criteria established by the safe and vault industry and by testing laboratories such as Underwriter's Laboratory and others. Only safe models that have passed very rigorous testing procedures are allowed to display labels from these agencies. Safes and vaults used in the banking and jewelry industries have an additional insurance rating. These ratings are based on the value of the items being protected and what hazards they are designed to protect against.

## **Fire Rated Safes**

All safes designed to protect valuables/records against fire and explosion hazards are rated based on how long they can keep contents at a given safe temperature (under 350 degrees F) which is usually anywhere from thirty (30) minutes to two (2) hours, or more. They are also tested for the hazards of dropping (as in a fall through a burning floor) and explosion due to fire in a structure. These safes are primarily designed to protect paper records from burning.

Although they are constructed of steel, are sometimes very heavy and have a combination lock, they may provide little or no protection from the risk of theft or burglary. These safes range in price from \$100.00 to as much as \$2000.00, depending on country of manufacture, quality, size, capacity and ratings.

Depending on the type of construction and insulating materials used, older fire safes may have lost their ability to protect against fire with age. The insulation and humidifying materials used in its construction can become dry and may be less likely to keep the temperature below 350 degrees F as it gets older. A safe older than 10-15 years may no longer protect your important papers and valuables from burning up in a fire.

## **Antique Fire-rated Safes**

Insulated safes manufactured more than 75 years ago were typically, over-designed and built to withstand structure fires with temperatures and burn times far exceeding those of today. Remember, fire department response times and firefighting technology were not what they are today.

After the "Great Chicago Fire" and the "San Francisco Earthquake and Fire of 1906" there was a run on well-built, high quality fire and record safes. The technology used to insulate contents against the extremely high temperatures of wood structure fires and to protect them for periods exceeding four hours is much different than that used in modern fire safes. I have opened antique safes side by side with modern records containers after raging infernos and found that the antiques out-performed the more modern equivalents.

Among the other advantages of owning an antique fire safe is quality of construction and burglary resistance. Some of these antiques, in addition to being quite beautiful to look at, were very resistant to even modern burglary techniques. I would speculate that if tested side by side with their modern counterparts, testers would find them much more difficult to open by force or more sophisticated methods than today's fire safes due to the high quality materials and labor-intensive quality and craftsmanship.

### **Burglary Rated Safes**

Safes rated to protect against the risk of burglary are necessarily different in design and construction than are those that protect against fire alone. Features such as heavy plate steel or composite material construction, manipulation resistant locks, anti-drill barrier materials, relocking devices, bolt-down provisions and other advanced features are incorporated into the design of the safe to thwart even the most well equipped and determined burglars and safecrackers. These safes may also be designed to provide varying levels of protection against fire, as well. These range in price from \$400.00 to well over \$10,000.00, depending on fire and burglary ratings, features and other factors as described above. What should you spend on a burglar resistant safe? The insurance industry recommends spending at least 10% of the value of the items to be protected, i.e. \$3000.00 = \$300.00. Expect to pay considerably more if you want both fire and adequate burglary protection in the same unit. Irreplaceable items, keepsakes and business/personal records are very difficult to place a value on, therefore you may require professional assistance in choosing a safe to protect these items.

### **Media Safes**

Media safes are designed to protect computer storage media (tape back-ups, floppy disks, hard disks, and removable hard disks) and the valuable data stored on them, from being damaged in a fire. They include specialized material to limit the interior temperature and humidity to below the level at which the media is damaged. Cost is based on size, weight, features, ratings and levels of protection.

### **SAFE LOCKS**

"Digital Electronic Safe Locks" vs key locks and conventional combination locks.

Safes have been around for over 200 years, with very little in the way of improvements until

the last 50-75 years. The latest innovation in safe lock technology is only about 6 years old. That is the electronic digital combination lock. These locks feature vast improvements in ease of use, ease of changing the combination, convenience, access control and security.

Safes originally were designed as strong boxes that used keys to lock and unlock them, until the combination lock was invented. Key locks required a separate key for each person designated to lock or unlock it. Simply having access to the key and the safe at the same time, granted that person access to the contents of the safe. If an unauthorized person gained access for the purpose of larceny, or simply if the key turned up missing, the lock had to be changed or rekeyed (to prevent the lost or stolen key from being used) and new keys issued to the authorized holders. Sometimes this was required after the loss had already occurred. This was often a very expensive and time consuming proposition. The main weakness of key locks was that the keys were often lost, misplaced or stolen.

Combination locks eliminated some of the weaknesses in safes operated by a key. The key was literally in a person's head. If the combination was compromised it was a simple matter of changing the combination to a new one and telling those authorized persons the new combination. Security was then reestablished in very short order.

The conventional combination lock required turning the dial a certain number of turns to the left to the first number then right to the 2nd number etc. etc. It was confusing, time consuming, tedious and very often required several tries to open the safe, even while following the written directions. Changing the combination was easier than replacing a number of keys, but it did require some technical expertise or training and sometimes a special tool. There were no keys to misplace or get stolen, so it was still better and very secure with its theoretical one million possible combinations.

Changing the combination usually required the services of a professional locksmith or safe technician to do the job right. Mechanical combination locks also require periodical maintenance to keep them operating smoothly and also to prevent the dreaded "failure related lock-out". Lost combinations were common due to the fact that you usually had to remember or carry with you, a fairly complicated set of numbers and dialing instructions.

Along comes the digital lock and all that is changed. Now you can open the lock as easy as using a push button telephone. Changing the combination is also that easy. The one million theoretical combinations (actually 400-500,000 useable combinations) of the conventional combo lock is a thing of the past, with a true "One Million" useable, settable combinations to choose from.

Easily remembered numbers can be set and changed at a moments notice, so the occurrence of lost combination lockouts are drastically reduced. Even the greatest amount of physical force or deft, safecracker's manipulations will not defeat a digital lock, without knowing the true combination, or being fully trained in proper, authorized opening methods.

Some digital safe locks also have an enhanced set of optional features which control its use by limiting access to certain times of the day and by certain specified users. They may also provide two person access only, time delay and audit trail features which are useful to businesses who have many employees as well as several levels of management that require access and control.... For example: the ability to restrict a daytime employee's access to the safe, say at night, for instance, is a very important feature to merchants and fast food restaurant operators, etc.

Most safe manufacturer's and dealers offer Digital Electronic Locks as an option on most of the safes they sell.

It is less expensive to order it as an option, on a new safe, than it is to install it later on, but it is possible and is getting to be a very common thing to do, especially on older or used safes. Speaking of used safes.....

### **BUYING A "USED" SAFE**

The recommendation to buy or not buy a used safe is a complicated issue. It is very often difficult to tell the age of a used safe or whether it will provide the level of protection desired. A reputable safe dealer will be able to advise you on this matter and will usually have several of both used and new safes, of various sizes, in stock for you to compare.

Buying a used safe without a working combination is a very risky business venture. Safes are awkward, heavy, difficult and expensive to move and deliver, without the proper equipment and training. Investing in a safe, moving it to your location and then finding out that it will take a considerable amount of money to open it and return it to useful service can be a disappointing, frustrating experience. It may turn out to be much less expensive to buy a new safe that is sure to meet your needs and budget.

### **ABOUT THE AUTHOR**

Ken Doyle is the owner and manager of Advanced Safe and Vault Engineering in Novato, California. He has 25 years of specialized training and experience in the safe & vault service industry. He is a member of the **Safe and Vault Technicians Association** and the **National Safeman's Organization**.

Advanced Safe and Vault Engineering was established in 1988 and is licensed, bonded, factory trained, authorized and certified to sell, open, service, relocate and install many of the most popular brands of safes, including: Adesco, Amsec, Star, Meilink, U.S. Security and many others. We can assist you in choosing, purchasing and delivering a new or used safe. If you are outside our service area, we can assist you in obtaining the services of a qualified safe company in your area.

This is the second in a series of "Web-Articles" on various aspects of security. Look for future articles on your forum.

For more information pertaining to safes, safe opening, service, repairs or purchasing a new or used safe, you can visit my web site:

**<http://www.advancedsafe.com>**

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