

Copier Buyers Guide

So, you are considering the purchase of a new copier? Or perhaps your old machine just is not economically feasible to repair. It is time to consider an upgrade.

Upon shopping the local copier dealers, you are shocked to learn that a new business grade copier can cost from \$2,000 to \$25,000!! Your next stop is the local office supply or superstore which offers the smaller PC (personal copier) grade type of machine starting at about \$200 up to about \$2,000.

Considerations When Buying a Copy Machine

There are five primary considerations when buying a photocopier:

1) How many copies you will be producing monthly?

All machines have a recommended maximum monthly copy volume or usage designated by the manufacture. All consumable parts (i.e. Drum, Developer, Rollers, Lamps, etc.) also have a maximum copy volume or stated yield by the manufacture. If the machine is used in accordance to the manufactures recommendations your machine will give years of solid reliable operation.

If you exceed the manufactures recommended total maximum copy volume during the warranty period the manufacturers warranty will generally become void and no longer be in effect. This generally only happens when a customer tries to save initial purchase money and buys a low priced / lower volume machine and uses it for high volume use. It is very important that you are realistic in assessing your copy-per-month copying needs before the purchase of any machine. Not only is this important in so far as the manufactures warranty on a new copier is concerned, it is equally important to the life expectancy and overall maintenance cost of the machine, be it new or used. After all, you would not use a Volkswagen in lieu of a moving truck because it could not handle the task. Similarly, a copier intended for low volume use could not handle the task of a copier intended for a higher volume use, and be expected to last very long.

Note: If you have a copier and intend to replace / upgrade it, you may find a service / maintenance log sheet attached to the back or side of your old copier from which you can obtain dates and page counts. From this you can do the math and see what your average monthly copy volume usage has been in the past. Another way is to estimate based on the amount of paper you use on a monthly basis

Generally copiers fall into Monthly Copy Volume Usage vs. Speed capability categories.

For example, if your monthly copy volume is 1,000 to 2,000 copies per month, then you should seek a copier with a speed of approximately 15 to 25 copies-per-minute (CPM). This Monthly Copy Volume Chart may help you determine the speed of copier best suited for your copy needs.

| Your Anticipated Monthly Copy Volume | Suggested Copier Speed: Copies Per Minute |
|--------------------------------------|---|
| 1 - 1,000 | 5 - 20 |
| 1,000 - 2,000 | 15 - 25 |
| 2,000 - 10,000 | 15 - 35 |
| 10,000 - 20,000 | 25 - 40 |
| 20,000 - 30,000 | 30 - 60 |
| 30,000 - 50,000 | 35 - 65 |
| 50,000 - 80,000 | 45 - 65 |
| 80,000 - 200,000 | 65 - 90 |

2) Will you need to Copy and Print in Color?

Color copiers have come down drastically in price over the last 4 or 5 years. New business grade color capable machines are available for less than \$7,000. PC Grade products are less than \$1000 and inkjet machines are practically free.

The main thing to keep in mind when looking at a color copier is cost-per-copy. This is the amount of cost per page of printed material. You will learn later in this document the differences in the cost per copy based on the level of machine you purchase. This needs to be weighed against how important color is to your business so that you can justify the additional cost.

3) What features you require?

Today's copiers are more than just a plain; put in your paper, press start and get a duplication out type of machine. There are a myriad of options available that can help enhance the productivity of your office. In our multitasking world, they can really be a benefit.

Most copiers now have by default at least Network Printing capabilities standard so that any computer can print to the copier the same way you would a stand alone printer. Additional upgrades can include; PC Scanning, Network scanning,

Fax, i-Fax, Accounting Software, Document Storage and Retrieval Solutions, Advanced Sorting, Stapling and Hole Punch. The list goes on.

Most copier companies have Consultants or Sales Engineers that can help understand what these options are and how they can help your business. There are also definitions at the end of this document

4) Space and machine size requirements:

Copiers typically come in two main types: desktop and floor standing. Desktop machines do not normally support more than two paper trays and many times will not support paper sizes above legal. Floor standing copiers usually have wheels so that they can easily be delivered and moved around the office.

5) How soon you will outgrow the machine.

Business grade

Other important considerations are the reliability of the machine and how many copies the consumable parts (toner/drum) yield and their replacement cost.

Copy Machine Grades

There are three basic grades, or classes, of photocopier machines. The first grade of copier is the PC (Personal Copier) grade. These are often sold in office supply, electronics stores and on-line. The second, and generally most preferable, grade of machine is the standard Business Grade machine. Next, there is the Commercial Reprographic Grade machine. These are primarily designed for high volume users who produce 50,000 to 100,000 copies monthly.

The PC Grade Copier :

Most PC grade machines are sold by your local office superstore. They are designed to produce a maximum of 500 to 1,500 copies monthly. In buying the PC Grade Machine, remember that the convenience of a new small PC grade copier may soon be over shadowed by the lack of features, capacity, high cost per copy, and lack of available on-site service.

Pluses and minuses of the PC copier: The pluses are 1) "instant warm-up" that means when you turn the machine on it is ready to make a copy within one minute, 2) easy to replace drum / copy cartridges, and 3) low purchase price. On the negative side, these units have; 1) slow printing only 5-10 copies per minute (CPM), 2) high cost per copy; usually over 6¢ B&W and 14¢ color, 3) lack of available features and paper sizes, and 4) lack of on-site service.

In the event of any needed repairs, most of these machines are not on-site serviceable by the manufacturer and are shipped off to "Repair Depots" resulting in a loss of your copier (possibly for several weeks) during the repair period. However we would like to note that PC grade machines in general enjoy an excellent record for reliability and customer satisfaction.

*** A note about how copy cost / toner yield is figured :** Cost per copy / toner yield is figured on a percentage of how much toner is applied to a letter size copy. If all the toner applied to your letter sized copy is condensed down to a solid block / field it would equal a percentage of the size of the copy. Thus the "toner field" is the quotient in which cost per copy / stated yield is based upon.

In regards to PC type machines, the "stated yield" or copy cost is generally based upon a 5% coverage per letter sized copy (960 capital "E" characters @ 10pt size = 5% page coverage) of black and white prints. If the stated yield of the Toner Cartridge says 2,000 copies, average yield will be more like 1,200. Reason being, most documents copied run an average of 8%-15% field. And with copying any graphics you can easily be up to a 25% to 50% field (a total black copy will use enough toner to have produced 20 copies @ 5% field page coverage). These machines, even for low volume users, can rapidly become cost prohibitive to operate.

As for color copiers, most color cost per copy information is based on 20% coverage and typically the more you pay for the machine, the less you will pay for supplies. For example an inkjet copier/printer will cost 20¢ or more per print in color. That is why the machines are so cheap; the manufacturers make it up in ink. PC Grade color laser copiers will typically run 13¢ to 17¢ per copy and the business/commercial grade machines can cost 5¢ to 11¢ depending on make and model.

If you are an infrequent user of color, it really does not matter if you are paying 10¢ or more per copy as the overall cost is very little. Where you see a difference is with the user that makes 12,000 or so color copies per year (that is only 1000 color copies per month). At 6¢, you will pay \$720.00, but if you are paying 15¢ it will cost you \$1,800.00. That is a difference of over \$1000.00 per year! Over a 5 year period you have almost paid for the business grade machine not to mention the quality of prints and reliability of the lower end units will not even come close to a business machine.

The Business Grade Copier or MFP (Multi-function Printer) :

For most users the standard Business Grade Machine is the best choice. This is the most common grade of machine. Business grade copiers typically produce 15 to 60 pages per minute. Features and machine size will vary; they can range from a simple desktop model to a large stand alone machine. Business grade machines are generally recognized by a low cost per copy and the availability of

"Full System" options. Average cost per copy is 1¢ - 3¢ for black & white and 6¢ - 11¢ for color. This cost typically includes supplies and on-site maintenance.

Common features are image reduction and enlargement (R/E), duplexing (scans and prints both sides of the paper), automatic document feeder (ADF), and sorter. These machines are designed to produce from 1,000 up to 50,000 copies monthly. New purchase prices can range from \$2,000 to \$15,000. Most copier companies have leasing options available so that you can spread the cost of the product over a two to five year period. A Business Grade machine will give you years and hundreds of thousands of copies worth of service. This grade of machine truly represents the best overall value.

The Commercial Grade Copier :

The commercial grade copier will generally include many of the full system features and produce 50 plus copies per minute. Differences that separate this type of machine versus the business grade machine are 1) monthly copy volume, 2) lower maintenance (generally required only every 100,000 copies) with service costing no more than business grade copiers, and 3) low cost per copy.

The minus to this type of machine is the slightly larger size over business grade. New purchase prices can range from \$25,000 to \$40,000. However good used or recondition machines can be purchased for the price of a business grade machine. With low maintenance cost and low cost per copy, machines like this can become quite attractive.

Standard Features

R/E : Reduction and Enlargement, some machines may also have a zoom lens in which the image size can be altered in 1% increments.

ADF or RADF: The Auto Document Feeder or Reversing Automatic Document Feeder will feed a stack of 2 to 80 originals automatically to the copyboard glass for copying. The RADF will flip the paper and scan both sides so that you do not have to do this manually.

Duplexing – Automatic two-sided printing

Account Codes – When enabled the copier will force the user to enter a three to eight digit number before prints or copies can be made. This feature is most commonly used in shared office and legal applications where billing is done on a per copy basis for multiple accounts.

Optional Features

Finisher : This collating feature will allow you to make multiple copies of multiple originals, e.g., the ability to make books, manuscripts and presentations. Sorters typically have options for stapling, hole punch and saddle-stitch finishing.

Misc. Features : Some of the other features may include Image Editing, special Book Copying Mode, and multiple colors.

Copier Leasing and Cost-per-Copy Plans

Buying A Pre-Owned Copier

Purchasing a pre-owned copier will help you avoid that immediate 40-60% drop in resale value which happens the moment you take delivery of that brand new photocopier. With thousands of well maintained copiers coming "Off Lease" and/or being repossessed monthly, purchasing a pre-owned copier may be your best choice. Lots of great equipment is available at a fraction of the new cost.

There are three basic sources from which to buy a pre-owned copier. One is the franchised dealer, another is from a private party, and the third is from a Independent Photocopier Sales and Service Company who may be your best and wisest choice. They generally offer Fully Serviced or Re-Conditioned Copy Machines at a fraction of the cost of new equipment and generally include a 30-90 Day Warranty.

A Independent Dealer will generally offer better prices on copy machines, service, and supplies. Most of these independent dealers buy their machines from Wholesalers and Leasing Companies and then fully service or recondition them before resale. These "Independents" generally select only machines for resale that are in above average condition and are known not to have been produced with factory design defects.

You may however decide to browse the Sunday classifieds noticing photocopiers for sale at an affordable price. Your mind immediately asks why are these people selling their machine. Well, in all probability it will be one of the following reasons, 1) they are upgrading to a newer machine or one that has added features, 2) the machine is post-lease, or 3) the machine is problematic, or a lemon. Regarding the first and second reason, you may want to strike a deal.

Regarding the above third reason, does the machine have a good track record? To find out the status of a certain brand/model of copier you may think of calling that copiers Franchised Brand Dealer. A typical answer from them in regards to the before mentioned question would be "yes". In most cases its likely you will be

calling them (the same dealer) for future service. This therefore allows the dealer a perfect opportunity to sell you the profitable and almighty "Service Contract". Call an "Independent Dealer" to get a less biased answer.

It is recommended that when buying a pre-owned copier you always get a warranty. Some sellers may offer you a lower "as-is / no warranty" price, its your decision, do you like gambling? Obtaining a 30 day / 3,000 copy warranty allows a sufficient period for evaluation of machine condition.

Things to look for when Buying a Pre-Owned Copier

Before purchasing, it is important to check the overall condition of the machine. Regarding the age of a copier, best values are often obtained with a machine age of 5 to 8 years old. Parts and supplies are generally available for up to 15 years after the date the machine was manufactured.

The four primary indicators for judging the condition of a pre-owned machine are:

- 1. Copy Quality :** You are looking for a good copy with solid black / colors and a nice clear background. This indicates the general condition of the Drum, Fuser Rollers, Developer, and overall condition of the machine.
- 2. Lack of Paper Jams :** Run several copies through the various cassettes, and if applicable also the Sorter, Auto-Doc Feeder, and Duplexer unit. This checks the condition of Paper Feed Tires / Rollers, feed mechanisms, and the accompanying clutches.
- 3. Overall Cleanliness :** If the machine is clean inside and out there is a good chance that the machine has been recently serviced.
- 4. Total Copy Count :** The total number of copies made on a machine is an important factor, but it is not the only way to judge the machines condition. Environment, periodic maintenance and general up keep also strongly come into play in determining a machines overall condition.

Generally speaking you can use a simple formula to calculate a machines lifespan. Take the maximum factory rated monthly copy volume x 12 (months)=A, take A (Annual max. rated copy volume) x 5 (years)=L (maximum copy volume Lifespan). We recommend that you purchase a machine with no less than 50% of Service Life (L) remaining.