



WHITE PAPER

How to select the right barcode printer

Prepared by : Francis Joannette
Date: January 2021
Document: How to select the right barcode printer.docx
Version: 1.5

Choosing the right barcode printer!



Barcode is probably one of the most used technologies for data capture and also one of the least expensive. The different symbologies of barcodes have given companies a very important, sometimes decision-making tool for managers. The barcode is either printed on a barcode label printer, pre-printed on the packaging or engraved on your product. The success of your labeling project is the result of matching the right type of label with the right ink ribbon and the right printer.

THE RIGHT LABEL

The first question to ask before selecting a printer is **what type of labels does your application require**? Many people would say "A label is a label", but it's not. There are many types of materials and many types of adhesives. To choose the right combination, you have to evaluate all the factors such as where the label will be stored, where it will be applied (is the product surface hot, cold, wet, dusty as adhesives react differently to surface conditions), etc. Here are some examples:

- You work in a below freezing environment, your label must have a freezer adhesive.
- You work in a wet environment, you need an aggressive glue to prevent your labels from falling on the ground.
- Your products are exposed to the elements outside, you must have an indestructible synthetic label.
- Your products are exposed to extreme heat, you need a metalized label (UL / CSA approved type).
- The ink ribbons also play an important role because they also have a different degree of resistance, like the labels. There are black or colored ribbons, wax-based or resin-based (for optimal resistance).



THE RIGHT PRINTER

Matrix and Laser printers

High speed dot matrix printers are generally used to reproduce very large labels where the quality of the barcode is not paramount such as a sawmill label to identify a bundle of wood.

Did you know that over 50% of laser printers are not designed to print on labels? Because of the high heat generated at the printer's output, the labels can come off in the printer causing sometimes costly breakage. The printer must therefore be designed so that the label does not bend inside the printer. Continuous paper printers are an excellent choice.

THERMAL TRANSFER PRINTER

With these printers, you get a true black-on-white code, so a premium quality barcode. How to choose the right one? There are dozens of models. The way to orient your choice on the right model is to determine the following criteria:



1.800.EXA.5383

White paper on the selection of a barcode printer

- *What are the volumes of labels to be printed per year?*

The quantity of labels is proportional to the robustness of the printer.

- *What will be the minimum and maximum labels to print?*

This step aims at choosing the printer that offers the maximum width desired. Generally, the printing width varies between 4 inches and 8.5 inches, and the length can reach 64 inches.

- *Do you have "logos" or very small characters to print like ingredients?*

Print quality also varies. The print head resolution ranges from 152 to 400 dots per inch, allowing for very small characters to be printed.

- *Do you have to print in color?*

Some models cannot print in color. This may not seem like a big deal, but if market standards change or if your company's marketing people decide that you need to identify certain products in blue or red, you'll be back to square one.

- *What environment will the printer be installed in?*

The printer cabinet can be either plastic or metal. There are also pressurized and/or heated cabinets that allow the printer to be used in extremely harsh environments.

- *What will be the desired output speed?*

Print speed can range from 2 inches per second to 12 inches per second, which means if you have a 4 inch by 6 inch label, you are printing two per second!

- *Options*

The printers can also be equipped with options such as a label rewinder, a knife to cut the labels at the exit, additional memory, etc.

THE STANDARDS

Your choice of printer should be made by considering the bar code standards established in the market. The best example would be the specifications established by the food chains for the UPC code. Since errors at the checkout were becoming too numerous, it became imperative to require a quality standard. Some companies, suppliers of these chains, had to buy a new printer. We are constantly confronted with all these standards, and the technologies to meet them. Do not hesitate to write to us.

