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**Océ**  
Large Format  
Inkjet Printer  
Buyer's Guide

How to choose the inkjet  
printer that is right for  
you



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# Large format inkjet printing

If you need output larger than 8.5" x 14", a wide format inkjet printer may be right for you or your organization. Below are some points to consider when thinking about purchasing a wide format inkjet printer:

- Do you print documents larger than 8.5" x 14", whether graphics, photographs, banners, advertisements, or technical construction documents?
- Do you want the flexibility to print on demand?
- Do you want high quality output when printing large format prints?
- Do you want to be able to control your own printing?
- Do you want to be able to save money when printing large format prints?

If you have answered yes to any of the above questions, then a wide format inkjet printer is right for you. Within this paper we will discuss:

- What are wide format inkjet printers
- Who uses wide format inkjet printers
- Common ink types used in wide format inkjet printers
- Key considerations and benefits





### What are wide format inkjet printers?

Just like printers used in a home office, wide format inkjet printers provide the ability to print output in black & white, color or both. Wide format printers are used to print banners, posters, construction documents, complex GIS maps and signage. These inkjet printers use printheads with a series of nozzles to spray drops of ink onto paper.

These devices typically range from small inexpensive consumer models to larger machines used in a business environment and have larger maximum print widths than the standard home/office inkjet printer. Wide format printers use rolls of print material rather than individual pre-cut sheets to provide optimal productivity and flexibility in output. The width of a typical wide format inkjet printer ranges from 17” up to a possible 60”, with the ability to handle standard media sizes up to and including the largest width.

### Who uses wide format inkjet printers?

A wide format inkjet printer is ideal for virtually anyone who wants to print full-color presentations, signs, posters, banners, CAD drawings, GIS maps, or any other types of large format output. Users of wide format inkjet printers frequently include businesses, schools, architects, engineers, photographers, commercial print providers, retail print centers, and many more:

- Engineering Companies
- Construction Companies
- Government Agencies
- Manufacturing Companies
- Utility Companies

## Common Ink Types

There are multiple types of ink systems used in inkjet printers. Three of the most common types are:

- **Aqueous:** thermal inkjet printers use an ink known as aqueous (water-based). The printing technology in these devices is very similar to that in desktop inkjet printers but with the ability to print at much wider widths. Aqueous printing solutions deliver the speed, quality, reliability, and versatility for today’s indoor printing applications, including signage, backlit displays, photography, and fine-art reproduction.
- **Solvent:** this term is used to describe any ink that is not water-based. Piezo inkjet printer inks use petroleum or a petroleum by-product such as acetone as its carrier liquid. “Eco-solvent” inks usually contain glycol esters or glycol ether esters and are slower drying. However the resulting prints are waterproof. Many of the uses for this type of printer include heavy graphics, banners and outdoor use. This type of printing offers the greatest durability without specialized over-coatings but requires specialized ventilation of the printing area to avoid exposure to hazardous fumes.
- **UV:** Some piezo inkjet printers use inks that are UV-curable (i.e. the ink dries when exposed to UV light). The resulting prints are waterproof, embossed & vibrant. An advantage of UV printing is that the inks can dry on plastics and other non-porous substrates. If you can get the stock through the press, you can print on it. Since the inks are dried with UV light, they do not have time to soak into the paper, ultimately giving the output a more vibrant color.





Regardless of the core ink system used, wide format inkjet printers use multiple colors of ink to achieve the optimal color gamut for the targeted application. Devices will typically range from a 4-color printer, for general usage and technical drawings, to a 12-color printer, intended for graphics and fine arts.

### Key Considerations and Benefits

In order to decide the best wide format inkjet printer for your organization, take into account the following key considerations:

#### Output Size

Wide format inkjet printers have larger maximum widths than standard printers. Sizes for the wide format inkjet printers range from a width of 17" all the way up to 60", with the ability to support lengths of hundreds of feet. If you are looking more into the length of the prints you want to create, you may not have to be as concerned over the width. If you are printing 24" x 80" banners or artwork, you can purchase a 24" inkjet printer and still be able to get the length needed. Normally 36-inches will be the maximum print width required for CAD drawings; the 44-inch wide format inkjet printer models will just take up extra office space with little added value if the extra width isn't needed.

Ask yourself what size you currently print in house and what size you outsource. Are you content with making letter/legal size drawings in house or would you like to be able to print everything including wide format poster sizes all in house?

#### Application Quality

Dots per inch (dpi) is the "resolution" at which your inkjet printer prints documents and images. The more dots in your printed image, the less grainy and distorted the final print will be. Generally speaking, 300 dpi and 600 dpi are suitable for text-only documents. Be aware that a printer with lower resolution but with more sophisticated technology can sometimes produce better-looking prints than another printer with higher resolution, so seeing sample output is desirable when judging quality.

Seeing sample output is an important part of evaluating a wide format printer. More specifically, evaluate sample output on the exact type of media you intend to use: your brand of bond paper, the exact banner stock you plan to use, or any other specific material that you'll be using. Printer performance can vary dramatically based on the media used - in fact, not all models can handle the same types of stock.

Photo printers producing high-quality prints will need a higher dpi rating. Generally speaking, the higher your inkjet printer's resolution, the better your printouts will look. Look for at least 600 x 1200 dpi for graphics and photos. If the documents being produced are intricate with fine lines or small type, then you will require a printing system that can accurately and reliably produce every detail with clarity and without losing critical information

#### Media Handling

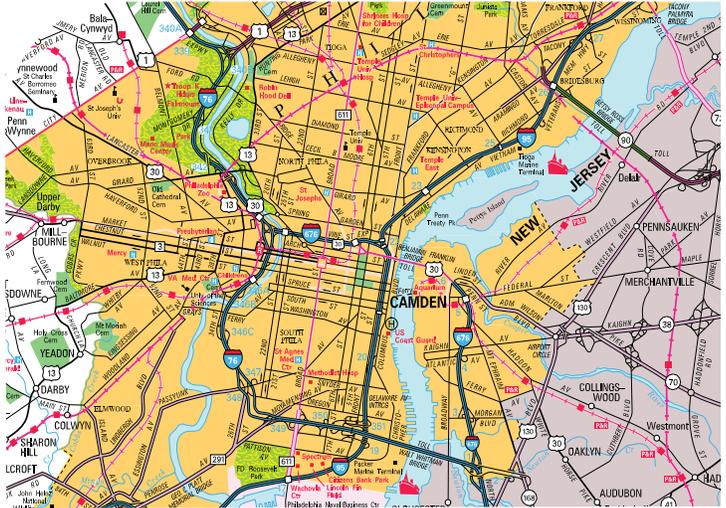
Media handling refers to the input and output of media in the inkjet system – how many rolls of media are available for use online, how one loads a printer with rolls of media, and how a printer physically outputs printed documents (finishing). If you use various sizes or types of media, it is important to have the capacity for multiple rolls of media available simultaneously. When evaluating inkjet printers, look at how the user loads media. Note if you can easily replace media rolls from the front of the system or if you need to access the roll holders from behind or underneath the printer. Some printers even offer the ability to change one roll of media while printing simultaneously on another roll. Because wide format media by its very nature can be large and cumbersome given the varying widths and weights, an easy to use media loading system improves workflow efficiency.

It is also important to considering media handling as it relates to finishing—how and where the printer outputs the page upon completion of printing. It is common that many printers will simply drop the print into a basket or catch bin, preferably in the front of the printer for easy access.

This can be acceptable if you print infrequently or have only a small number of users sending files to the printer. However a catch bin can become a bottleneck when prints are not quickly retrieved and begin to build up with jobs becoming mixed together. This can occur when you print multiple page files, several documents, or multiple users send their jobs to the same printer. As a consequence, the print order is lost and it can be troublesome finding the right print. Moreover, there is also a high risk of a print becoming damaged, subsequently requiring reprinting. Some inkjet printers offer the ability to neatly collate and stack prints in the order they were printed by use of a stacker. These types of systems are ideal for multi-user environments as well as for users who print many documents at a given time.

### Multifunction Capabilities

Multifunction inkjet printers, also called all-in-one inkjet printers, give you the option to print, scan, and copy, all at the touch of a button. Multifunction inkjet printers can be very convenient if you require not only printed output but also digital scans or copies, especially for your home office or workshop.



If your requirements will be growing in the future, you might consider a wide format printer that will grow with you. Perhaps you primarily print only at the present, but in the future, your needs could evolve to require scanning documents for archive, markups for collaboration, artwork scans for reproduction, and so on - all of which can be more lucrative to do in-house. Make sure the wide format inkjet printer you select can grow with your needs.

### Print Volume and Workgroup Productivity

If your site will produce a larger volume or currently outsources a large volume of prints, copies, or scans, make sure the printer you chose can keep up with your workflow and has the capability to grow with you.

With the advent of larger workgroups, older printing systems may become a bottleneck that can impede productivity. Waiting for large files to process and print, managing the print queue, preventing misprints, replacing consumables, tracking costs and protecting sensitive documents are issues that can arise as more people use the printer. Ensure the wide format inkjet printer you chose can help you achieve your business objectives.

### What are the benefits of using an inkjet printer?

- **Print larger size documents:** Wide format inkjet printers enable the user to print larger documents such as technical drawings, banners, posters and large advertisements than the standard media sizes that desktop printers can accommodate.
- **Image quality:** Another advantage of wide format inkjet printing is image quality. Many traditional printing presses cannot produce images of startlingly vivid colors, sharp lines and precise details, but it is something that you can easily have with a wide format inkjet printer.



# Beyond the Ordinary

- **Save on outsourcing:** If you have an organization that produces banners, posters, large photographs, CAD drawings, GIS maps or large advertisements, you can benefit from owning a wide format inkjet printer. Owning this type of printer can save the cost of outsourcing each time you need one of these documents printed.
- **Print on demand:** An in-house printer enables you to print what you need on demand with a quick turnaround time instead of sending the work out,

## Conclusion

There are many considerations when choosing a wide format inkjet printer. These systems can be very useful to organizations and individuals that produce technical drawings, advertisements, large scale photos, posters, banners, maps, and other large printouts. Ensure that the system you choose is the best fit for your applications to maximize the benefits you will realize.

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