highnote®
Your Brand. Elevated.

Achieve Your Sustainability Goals with Inkjet

Our sign printing devices use UV and UVgel inks which are UL GREENGUARD Gold certified, so prints are suitable for use in schools, hotels, and hospitals.

By its very nature, digital printing offers many sustainability benefits, such as less waste and chemical-free production, thanks to the reduced make-ready and set-up time together with the cost-efficient production of shorter runs matched to actual demand — even down to a run length of very small numbers on sheetfed inkjet. And being a digital process, the efficiency of digital printing and its consequential sustainability benefits can be maximized — and the risk of human error minimized — by putting in place fully automated workflows managed by software.

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Digital printing also gives access to more sustainable business models, such as on-demand printing (sell first, then print); dynamic publishing (highly targeted content based on streamlined data workflows and automated production processes, resulting in lower page counts); and programmatic print (linking marketing automation platforms and highly automated print production workflows).

Through the use of production inkjet technology, however, the environmental benefits of digital printing can be raised to an even higher level. If we start with printheads, most inkjet sheet- and web-fed production printers use piezo printhead technology, which works by rapidly passing an electric charge through a piezo crystal that flexes and forces a drop of ink out of a nozzle of the printhead. Engineered for precision and durability, these printheads have a lifetime of thousands of hours and only need to be replaced after years of use. The long lifetime of the printheads is also aided by the close interdependency between the printhead technology and inkjet inks, resulting in minimal maintenance costs.

As for inkjet inks, the most environmentally friendly are stringently manufactured aqueous pigment inks. Being water-based, these inks emit low odors, do not carry substances of very high concern (SVHC), and are free of mineral oil, aromatic hydrocarbon (MOAH), and saturated hydrocarbons (MOSH). Look for process-color inks that are listed in the Nordic Swan database of approved printing chemicals and show good deinking properties according to INGEDE Method 11 when combined with appropriate substrates.

Solvents used and produced in the manufacture of inks, coatings, and paints contain volatile organic compounds (VOCs), human-made chemicals that may have adverse health effects. However, sustainability-conscious suppliers ensure that the VOC emissions of ink and paper conditioning products remain well below the levels allowed by governmental guidelines. In addition, some inkjet printers use innovative technology to further reduce the impact of VOCs. For example, some drying technologies use a temperature low enough that any VOC particles that do enter the paper fibers are not released into the air, which means no exhaust air cleaning is required. Other printers have also integrated exhaust air cleaning systems that completely eliminate VOC emissions. It is also worth considering becoming compliant with the European Union's Restriction of Hazardous Substances (RoHS) directive — widely considered one of the most advanced directives on hazardous substances.

HighNote's inkjet press proved itself in the market and offers a clear upgrade path for new features and speed enhancements, making it truly sustainable.

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There are additional sustainable benefits to seek out when considering what inkjet press to purchase. One is energy consumption: while a press that is robust enough for heavy duty 24/7 operations is a given, there are inkjet presses — like the Canon ColorStream, ProStream, and variPRINT iX series — that feature low energy consumption per printed page, some even meeting the Nordic Swan requirements. Allied to durability are longevity and upgradability — as "digital" machines have at times been associated with "built-in obsolescence," look for an inkjet press that has proved itself in the market and offers a clear upgrade path for new features and speed enhancements, maximizing the lifetime of the system and making it truly sustainable. An inkjet press that has been built to last and operate around the clock, especially one that incorporates preventive maintenance concepts, is most likely to deliver high levels of uptime and productivity, and potentially up to 10+ million impressions per month.

Finally, an inkjet press that can be refurbished and has multiple recyclable parts will add to your sustainability credentials. Canon aims to maximize the economic life of our inkjet presses which have a high refurbishment rate and at least 80% of Canon's parts can be recycled within industry-standard recycling processes.

With sustainability becoming an increasingly important topic for print service providers and print buyers, it is a good reason to think about moving some, if not all, your work to production inkjet. Not only does Canon offer a range of production inkjet presses to suit every application and run length, but for us, sustainability is also a key consideration from the very start of the development of a Canon inkjet press — we use sustainable and/or recycled materials and energy-efficient manufacturing processes, and we eliminate hazardous substances wherever possible. In doing so, we bring our corporate philosophy of Kyosei — a Japanese word that means "living and working together for the common good" — to life and are able to share it with our customers.

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