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Ensuring your thermal image solutions are reliably sharp!

Product centric
Service centric
Customer centric

Topic:
Thermal printing vs. laser

OVERVIEW

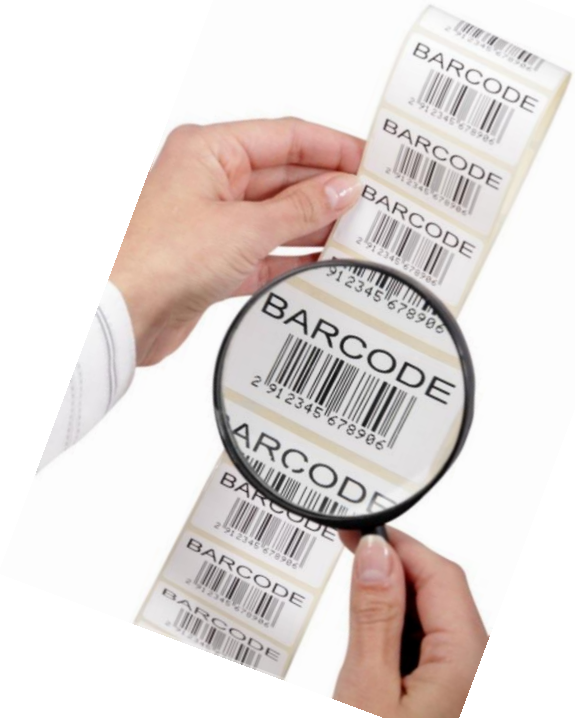
Laser printers have been well-established in the marketplace, and for this reason, laser printers were adapted for the expanding printing of label applications.

Laser printers were not originally designed for label applications and variable print jobs. On the other hand, thermal printers were specifically designed for printing labels and variable data.

As such, the Total Cost of Ownership (TCO) of laser printers versus thermal printing far exceeds the adaptation of using laser technology for meeting today's labeling needs.

Customer Benefits:

- TCO is less due to fewer consumables (ink, specialty papers, etc.)
- Performance is greater with thermal printing as a result of a more direct paper path resulting in fewer paper jams and malfunctions.
- Label performance may be lessened due to ooze associated with heating elements in a laser printer and roller compression in comparison to direct thermal printers.



Direct Thermal:
How It Works

The image is produced by selectively heating the thermal paper as it passes over the thermal print head. The specialized coating on the paper will turn dark where heat has been applied, thus producing an image.

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Solutions Overview:
Thermal Printing vs. laser

Area	Direct Thermal	Laser Printers
Consumables	Thermal Paper Thermal Printheads	Toner Specialty Papers
TCO	Initial Cost = Moderate/High Long-Term Costs = Low Efficiency = High	Initial Cost = Moderate/High Long-Term Costs = Moderate/High Efficiency = Low

Print Performance:
A Comparison

A laser printer and a thermal printer have two different printing methods. A laser printer goes through a series of rollers and path changes wherein heat infuses the image onto paper. A thermal printer typically has a short, straight path where the special thermal paper is introduced to the thermal print head and the heat causes the image to appear.

These differences in printing methods creates it's own challenges and benefits. A laser printer, when printing labels, the label has to bend or change directions due to the path changes. This can result in an opportunity for the label to separate from the silicone backing; thus causing print jams.

If a print jam does occur, there is an opportunity for the label adhesive to stick to the next surface of contact causing further printer malfunction.

On the other-hand, the throughput of a direct thermal printer is greater; not only because of the shortened, more direct print path, but the speed in which the image is generated on the label. Another key factor with thermal printing is the true print-on-demand capability. A user need only print out the single (or desired quantity) label as it is needed.

Ricoh Thermal Media
R Solutions

Ricoh's commitment to outstanding service is unparalleled in the thermal media solutions business. Utilizing strong R&D resources coupled with our excellence in manufacturing, we've been able to create solutions that are unique to our customer's requirements by solving challenges that they face.

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Let Ricoh help your company evaluate the ROI on switching your variable printing needs from laser to thermal. Contact your Ricoh sales representative for more information or visit us online at www.RicohThermalProducts.com.