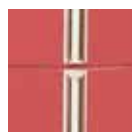
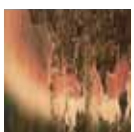
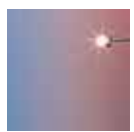
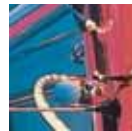
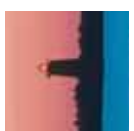
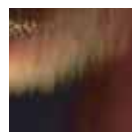
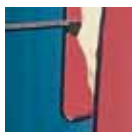
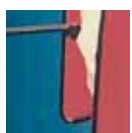
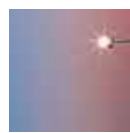
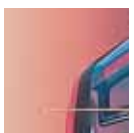
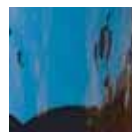
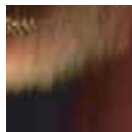
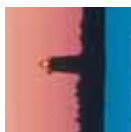


UV printing





notes

Volume 8 Number 2 The JOHN ROBERTS COMPANY

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- 6 Environmental advantages of UV
- 6 More about UV: online
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Michael Keene, President, The John Roberts Company

Printing technologies evolve continuously and as they do, they offer both possibilities and challenges. This continuum demands awareness from both printers and designers. At John Roberts, we're committed to a partnership with customers that delivers not only the highest quality technical production, but also friendly, helpful collaboration during the design and production process. As you investigate the possibilities of UV printing, we invite you to call. We're here to provide the information you need.

John Roberts introduces

UV Printing

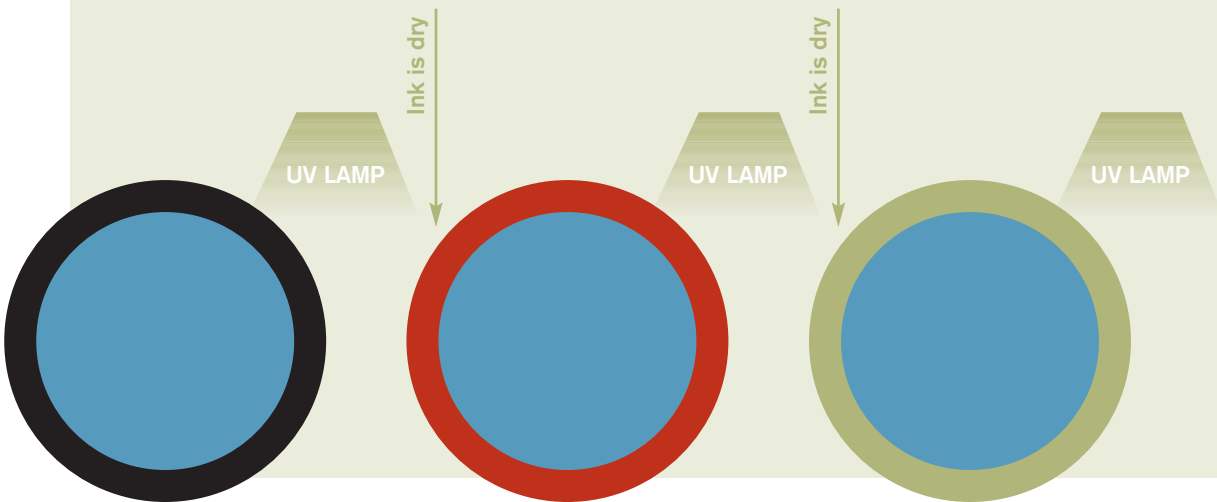
Ultra Violet (UV) printing is a hot technology. It offers high color and visual quality that far surpasses traditional offset printing when applied to non-porous substrates and uncoated stocks. It can contribute to a superior product, smoother process, and ultimately, client success.

UV technology utilizes monomer-based inks that have a solid composition and can be laid down heavily. While conventional inks dry by oxidation, UV inks are “cured” when hit by UV lighting after each color station on the press. This curing process happens almost instantly, and the paper absorbs less ink than in traditional printing. End results are crisp, detailed images with high print and color quality.

Because there is no dry-time required, even the most elaborate projects can be completed with fast turnaround times—a huge asset for clients who need their projects ASAP.

In comparison to traditional printing, the UV process is more expensive. However, outstanding results can be achieved on a less expensive, lower grade paper, which positively effects budget and can improve overall quality. (See page 4 for more on paper choice.)

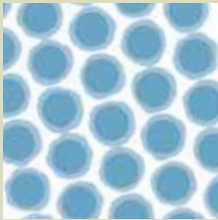
Consider UV printing for your next high-end project. Our sales representatives are available to help you decide whether this technology will produce the best results for a particular job.



High color quality on uncoated stock and nonporous substrates is one of the greatest benefits of UV printing. Traditional ink dries by oxidation; UV ink does not “dry,” but is cured. Traditional ink is absorbed into uncoated stocks; UV ink cures onto the surface, resulting in a sharper, cleaner image.



#1



#2

UV ink (#1, at left) tends to print even sharper than traditional inks (#2, at left), resulting in less dramatic dot gain and a clearer image. For more on dot gain and UV inks, see page 7.

Ultra Violet lighting is installed between the color stations of a UV press. UV lamps cure the ink as the sheet passes under the intense light. Because curing happens almost instantly, little ink is absorbed into the paper and images are crisp and vivid.

UV printing & process



Paper options abound with UV printing

- UV printing produces outstanding, vibrant color, on uncoated stock.
- Its impeccable dot integrity means the process can achieve high-end appearances on lower grade, less expensive papers.
- Instant drying makes it possible to print on a variety of substrates, such as plastic paper (Yupo). With traditional printing, required dry time for non-porous materials is extensive.

A look at UV coatings

Want to add value to your work? Consider incorporating UV coatings for eye-catching texture and effects that will increase the impact of the design.

Several years ago, UV coatings were considered poor quality, often murky and yellow. However, today's coatings are crystal clear and concerns over their quality are null and void.

UV coatings are run inline, resulting in lower cost and shorter turnaround time. When laid over conventional inks, the coatings offer glossier, more dramatic effects than other coatings. UV coatings are available in dull, gloss, semi-gloss, and pearlescence. They can be tinted for additional effects.



Vivid color — The inside pages of this newsletter are printed with both UV and traditional inks* on 100 LB. McCoy uncoated Text.

*Where used, traditional inks are labeled.

What you need to know about UV file prep

Designers need not worry about a lot of additional work when preparing files for UV printing. Files simply need to be sent in as they would be for traditional printing. Any adjustments that need to be made will be taken care of at John Roberts.

techtip

The skinny on UV & dot gain



Dot gain is the tendency for dots to print larger than intended, changing the overall visual quality of the printed product. While dot gain exists in every printing process, its effects can be and are minimized by adjustments made by the printer.

Dot gain is often measured as a percentage. For example, if a dot pattern on a plate covers 20% of the image area and when printed covers 40%, this results in a total dot gain of 20%. Total dot gain therefore is the numerical difference between the plated dot and corresponding dot size on the paper.

According to John Roberts Sheetfed Advisor, Keith Kuebelbeck, UV ink tends to result in less dramatic dot gain, printing as sharp or even sharper than conventional ink due to the print characteristics of straight UV rheology.

Depending upon the requirements of the job, the pressroom will determine which printing process to use. Designers do not need to make special adjustments to their files; John Roberts makes the necessary adjustments during the plating process to ensure a high quality product.

UV offers an environmental advantage

In comparison to traditional inks, UV inks provide several environmental advantages. The curing of UV ink does not produce harmful by-products, like those in other ink systems. Because UV inks eliminate solvents, VOCs (volatile organic compounds) are in turn eliminated from escape into the atmosphere. Sheetfed Advisor, Keith Kuebelbeck, says the inks are so environmentally sound that the empty ink containers can go directly into the recycling—no need for special disposal. In addition, UV cured materials can safely be recycled.



more **UV printing info**

If you would like to read even more about UV printing, check out the following articles online.

Printers Take a Shine to UV Printing

www.bizjournals.com/louisville/stories/2001/01/29/focus1.html

UV: A Healthy Alternative to Ink

www.printsolutionsmag.com/issues/march03/manufacturing.html

8 Ideal UV Coating Applications

www.printsolutionsmag.com/issues/july02/commercial.html

Kuebelbeck: on the job, UV is practical, versatile

John Roberts' Sheetfed Advisor, Keith Kuebelbeck, is excited about UV printing...and with good reason. Since John Roberts began offering UV in May 2003, he has not encountered a project that would not benefit from UV printing to some extent.

Kuebelbeck says that customers often don't realize that the process is available and easy to use. However, most high-end printers now work with UV printing on a regular basis.

"A few years ago, there were concerns about the environmental impact of the process. Now those concerns have been addressed, and UV is actually considered more environmentally sound than traditional printing methods," explains Kuebelbeck. (For more on the environmental benefits of UV printing, see page 6.)

According to Kuebelbeck, packaging projects are well suited for UV printing. It is a perfect tool for capturing attention, which is one of the most important objectives of package design. In addition, because the ink dries immediately, the job can move directly to finishing, which shortens turnaround time.

"With UV, we can also print on a variety of non-paper substrates," says Kuebelbeck.

These substrates include the following:

- Static cling: Used for peel and place window/wall clings
- Polystyrene: Used for point of purchase items, such as large banners
- Clear plastic: Used for decals, stickers, and bumper stickers
- Synthetic stocks, such as Yupo: Used for their durability.

"When we use UV to print on these substrates, the ink is cured immediately," explains Kuebelbeck. "Printing with traditional inks dried through oxidation could take days, sometimes even weeks to dry."

When it comes to cost, Kuebelbeck says that UV inks are more expensive than conventional inks, but increased efficiency and less expensive substrate options make overall project costs comparable to traditional printing.

Keith Kuebelbeck
Sheetfed Advisor
The John Roberts Company



Show & Tell

In a recent customer survey, we found that many JR web customers did not know about our sheetfed capabilities, and vice versa. To help our customers better understand JR's capabilities, we present Show & Tell, a gallery of web and sheetfed projects.

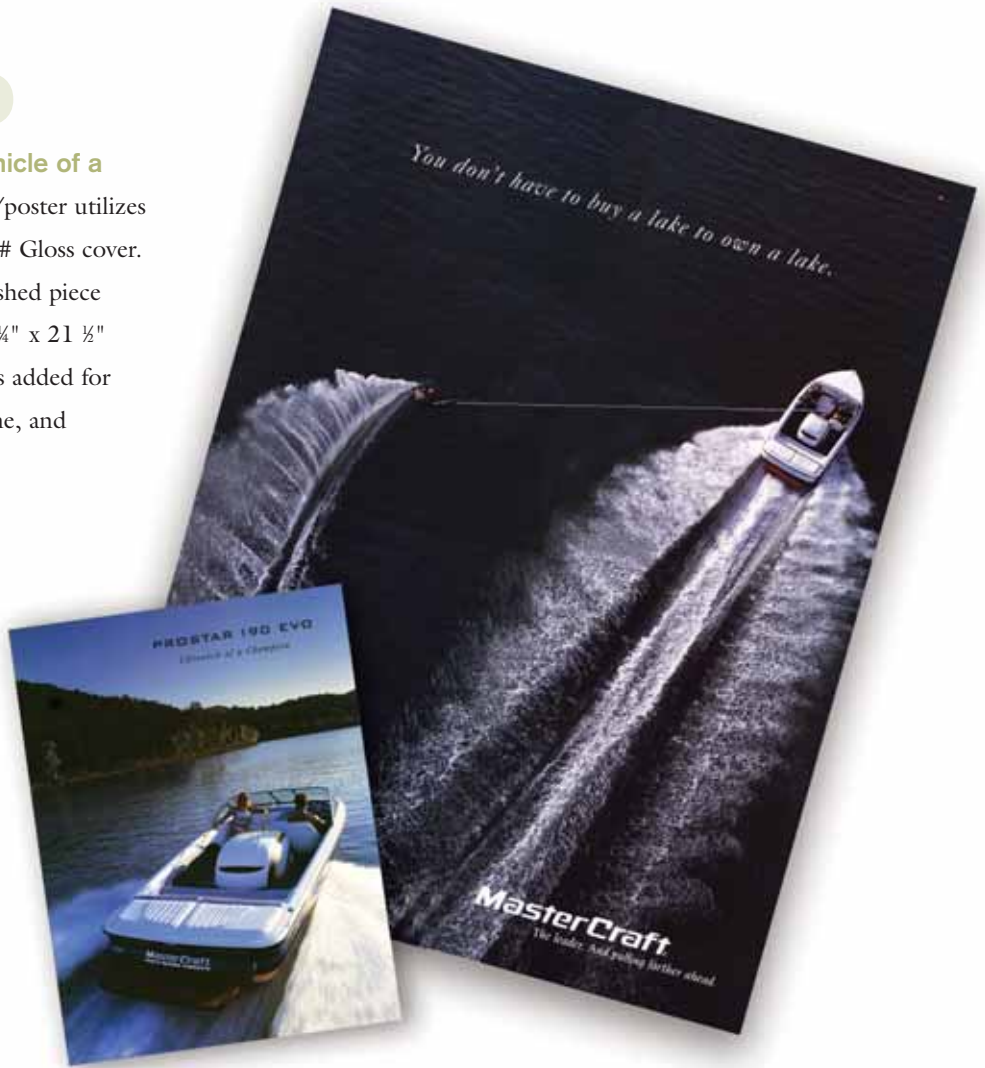
sheet fed (& web)

Best Buy's Fiscal 2003 Annual Report uses UV printing in a dual section, perfect bound book. The 68-page report utilizes a McCoy Uncoated sheet in a variety of weights: 80# Cover for a hinged, UV coated cover; 100# Text with UV coating for the theme pages (as in the spread below); and 70# Text for the financial report pages. Cover and theme sections were printed sheetfed and feature 4-color UV printing. The financial report section, printed on the web press, uses conventional printing in black with three spot colors.



web

MasterCraft's Chronicle of a Champion brochure/poster utilizes 4-color printing on 80# Gloss cover. The 8 1/2" x 10 3/4" finished piece unfolds to reveal a 16 1/4" x 21 1/2" poster. A mag strip was added for bindery into a magazine, and 117,000 were printed.



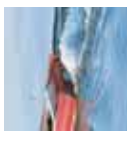
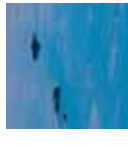
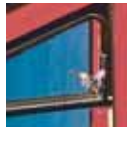
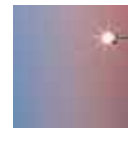
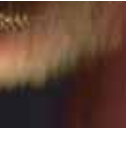
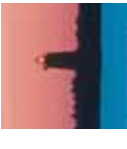
John Roberts at Design Camp

In an effort to build relationships with the design community, John Roberts hosted a booth at this year's American Institute of Graphic Artists (AIGA) Design Camp held at Grandview Lodge in Nisswa, Minnesota.

We were honored to be selected "Most Creative Vendor Booth," "Vendor with the Friendliest Staff," and the printer "They're Most Likely to Work with After Camp."



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