

digital report



HP Designjet 800ps

It's in the proof

Faster, better, cheaper. A look at the latest inkjet proofers for your shop

Each year, the quality and flexibility of inkjet printers get a little better, the speed a little faster and the prices a little lower. This year was no exception, with Super A3 (13" x 19") printers dropping below \$600 for the first time, and the quality on the high-end models approaching the best traditional contract proofs.

With the ongoing move toward filmless workflow at print shops everywhere, the role of the digital proofer becomes a critical one, and inkjets, properly maintained and colour-managed, are certainly up to the task. Inkjets have moved beyond the rough-proof stage into final-colour-approval and press-proofing stage, and most printers are taking advantage of the low cost and quick turnaround they offer.

Here we'll look at the best of the 2005

inkjet printers from the top three manufacturers—Epson, HP and Canon—with an eye toward the requirements of print and design shops, including a printable image size of 12" x 18" or larger, a wide variety of paper and the ability to work in a colour-managed workflow. Some are new models, others feature improvements on existing ones. Depending on your size and volume requirements (and your budget), all are worth a careful look.

By Bob Atkinson

Canon

Canon has been gaining ground in print and design shops with the capable imagePROGRAF line of inkjets, starting with the **W2200** (\$2,195). It prints on sheets up to 13" x 19" in six-colour mode at 2,400 x 200 dpi, kicking out an 11" x 17" print in about two minutes in high-quality mode. It offers unbeatable connectivity, with standard USB, parallel, FireWire and Ethernet connectors.

Next up the line is the **imagePROGRAF W7250** (\$3,495), which offers 24" wide printing on sheets or rolls at 1,200 x 600 dpi. Print speed is good at 46 square feet per hour (sfph) in high-quality mode. ISB and Ethernet are standard, FireWire is optional.

Need bigger proofs? Look at the **imagePROGRAF W7200** (\$5,995), which handles sheets or rolls up to 36" wide at a speedy 72 sfph and

uses large 330 ml ink cartridges for less frequent changes. USB, Ethernet and FireWire are all standard on this model.

Whichever printer you choose, be prepared for a 75¢ to \$1.25 materials cost per square foot, depending on the paper type you choose. Also, make sure

you use the colour profile provided with the printer in all your prepress and design software to minimize screen-to-proof surprises. Properly used and maintained, any of these printers are capable of very high-quality proofs for your shop and your customers.

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Hewlett-Packard

HP's long-standing Designjet line of inkjet printers remains popular among sign, print and design shops, with attractive pricing and relatively speedy performance. The entry-level Designjet 30n, with a \$1,200 price tag, prints on sheets up to 13" x 19" at 2,400 x 1,200 dpi using a six-colour process (CMYK plus LC and LM) and features USB, parallel and Ethernet connections.

For wider prints at the same price, have a look at the Designjet 70, which prints on sheets or rolls up to 18" wide at 1,200 x 600 dpi using regular CMYK inks. Ethernet is an optional choice on this model. The **Designjet 110 plus NR** model, at \$2,450 prints up to 24" wide and includes Ethernet.

Moving up the HP line, the **Designjet 130nr**, at \$2,900, also prints on rolls or sheets up to 24" wide, but uses six-colour

inks at 2,400, x 1,200 dpi and incorporates an automatic cutter. Again, USB, parallel and Ethernet are standard.

For large prints, try the 42" wide models—the **Designjet 500ps** (\$6,250) uses CMYK inks at 1,200 x 600 dpi and comes with a software-based PostScript RIP, and the speedy Designjet 800ps (\$9,600) takes it up a notch with 2,400 x 1,200 dpi, 160 Mb of internal RAM and a 6 Gb hard drive for job caching.

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Epson

Long the market leader in image quality, Epson has raised the bar again this year, with the introduction of the eight-colour K3 ink system on four new models that prints on media as thick as 1.5mm (12 pt. card stock) without problem.

The professional entry-level **Stylus Photo 1280** (\$549) offers six-colour (CMYK plus LC, LM—two cartridges) printing on sheets or rolls up to 13" wide, with a maximum length of up to 44". Maximum resolution is 5,760 x 720 optimized dpi, and the print speed is reasonably fast for this price range. It delivers an 8" x 10" high-quality print in about two minutes. It comes with USB and parallel connectors and an optional EpsonNet 10/100 Base-TX Ethernet adaptor (\$70) as well as optional Epson StylusRIP PostScript RIP Mac/Windows software (\$220; note that it does not run under Mac OS/X).

Moving up the product line, the **Stylus Photo R2400** (\$1,099) offers the same image sizes, but at 5,760 x 1,440 optimized dpi and, more important, the new K3 eight-colour ink system, which actually uses nine separate cartridges—CMY plus LC, LM, two levels of grey and either photo gloss or matte black ink. The real improvement here are the two grey cartridges, which produce black-and-white proofs of incredible quality without unwanted colour tints, as well as improved midtone colours. At this point, the K3 inks are definitely state of the art. This printer puts out an 11" x 14" print in Photo mode in about two minutes and handles paper or card stock up to 1.3 mm. It comes with USB and FireWire connectors and an optional EpsonNet Ethernet adaptor for \$70.

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The new **Stylus Pro 4800** Professional Edition, at \$3,195, is similar to the R2400, but prints on sheets or rolls up to 17" wide, offers a maximum resolution of 2,880 x 1,440 optimized dpi, handles media up to 1.5 mm thick, includes ColorBurst's PostScript RIP software, standard USB, FireWire and Ethernet connectors, a built-in paper cutter and uses either 110 ml or 220 ml ink cartridges.

At the top of the Epson inkjet line, the Stylus Pro 7800 Professional Edition, at \$4,290, and the **Stylus Pro 9800**, at \$6,400, offer similar specs and K3 ink

prints at up to 24" wide or 44" wide, respectively, with comparable print speeds. Print length is limited only by the software you work with. The models work with a number of third-party software or hardware PostScript RIPs.



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Key features and capabilities to look for in a proofing printer

1. Depending on your press size(s), you'll want a proofer that can print images from 13" wide or more. The models in this roundup go from 13" up to 44" wide. The length of the images is generally limited only by your software application, so a 24" wide printer can easily handle a 22" x 30" print, for example.
2. Look for at least six-colour printing (CMYK plus light C and light M) to get the best midtones and minimal banding effects.
3. If your shop is a busy one, print speed can be important; check out the print times at various sizes in Photo or Best mode.
4. While the standard print drivers that come with all of these printers work

together with the operating system (Mac or Windows) to smooth type and other vector objects on the proof, you'll get the best results on these elements using a software or hardware-based PostScript RIP. Some of the printers listed above come with their own PostScript RIPs, and several third-party RIPs also work on many popular inkjet printers such as:

- PosterShop (www.onyxgfx.com)
 - ColorBurst (www.colorburstrip.com)
 - EFI ColorProof XF (www.efi.com/products/colorproofXF)
- Bear in mind that these RIPs cost anywhere from a few hundred to several

thousand dollars, usually based on the size of proofer each drives.



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