Canon

imagePROGRAF®
iPF9000S/8000S

iPF S-Series

COMPETITIVE BRIEF

STORY GARDENS
Semi-Annual Flower Sale

imagePROGRAF S-Series Competitive Brief

Canon innovation delivers the right solution for production printing environments

The new S-Series production printing systems are an important part of the impressive imagePROGRAF solutions line-up. Built around an innovative 8-color configuration, high-density print-heads, and the high-speed L-COA processor–these are the fastest Graphic Arts large-format printers ever brought to market by Canon. Available in two sizes–the 60″ iPF9000S model and the 44″ iPF8000S model–these production-grade printers are more than 40% faster than any other imagePROGRAF Graphic Arts printer, making them ideal for digital print service providers, in-plants, and other professionals who need to increase the capacity, productivity, and versatility of their large-format printing services.

Built specifically to meet the demands of the highly competitive production printing market segment, S-Series printers are fully integrated large-format printing solutions engineered to produce more, in less time, with a lower total cost of operation.

L-COA

What makes the imagePROGRAF S-Series printers unlike other large-format printers?

From input to output, imagePROGRAF S-Series printers are comprehensive large-format printing devices that seamlessly integrate advanced Canon technologies into a single, highly efficient production-grade printing solution.

UNIQUE SELLING PROPOSITION	FEATURES	BENEFITS
Available in Two Sizes	• 60" iPF9000S • 44" iPF8000S	• Produce a greater variety of large-format applications
Maximum Productivity	• Canon's fastest imagePROGRAF Graphic Arts printers • 1200 x 1200 dpi on coated papers–over 400 ft.²/hr.* (iPF9000S) • 2400 x 1200 dpi on glossy media–up to 105 ft.²/hr.* • Two 1.07" print-heads with a total of 30,720 nozzles • High-speed L-COA image processor • Large ink tanks that can be replaced on-the-fly, available in 330ml or 700ml sizes	• Produce more in less time • Increase production capacity • Meet tight deadlines
Borderless Printing	• Reduces trimming and finishing requirements	• Prints are ready to use
80GB Hard Drive	• High capacity for print job data, storage, and retrieval	• Increases productivity by relieving workload from the host PC
Excellent Print Quality	• 8-color ink set provides wide gamut for production print applications • High-resolution output, up to 2400 x 1200 dpi • Superfine 4pl ink droplets • LUCIA™ Pigment inks	• Prints look great–even up close! • Durable, light fast, color images resist fading
Built-in Quality Control	• Built-in calibration function • Roll media detection system • *Kyuanos* color matching engine	• Consistent output across multiple printers • Accurate reprints • Fewer errors, less waste

* OS: Windows XP SP2, CPU: Pentium® 4 3.2GHz, RAM: 1GB, Application: Adobe® Photoshop® 7.0, Interface: USB 2.0 Hi-Speed, Data used: ISO/JIS SCID No. 5, Output image size: A0 (827 x 1033.8mm). Measured by Canon Inc. Each print time does not include data transfer time. The print speed may vary depending on the data volume and size, PC, application, software, and interface.

UNIQUE SELLING PROPOSITION	FEATURES	BENEFITS
Low Total Cost of Operation	• Economy Color Print Mode reduces ink consumption 10% to 20% • Low-maintenance, long-life print-heads • Draws only 190 watts of power during operation	• Lower overhead costs • Increase profitability • Be more competitive in the marketplace
Software and Workflow Solutions	• Canon Printer Driver 2007 • Print Plug-in for Adobe® Photoshop® • Print Plug-in for Digital Photo Professional • Digital Photo Front-Access • Web Link	• All S-Series printers come equipped with software and workflow solutions to help you do more, in less time–more easily.
PosterArtist 2007* (Optional)	• Easy-to-use poster creation tool • Includes print-ready clip-art, royalty-free images • Over 180 professionally designed customizable templates • Supports Variable Data Printing applications • Auto Design function • Ambient Light Adjustment feature • Web Link	• Significantly expands the range and sophistication of graphic services that can be offered
Canon Alliance Partners	• A wide range of compatible third-party RIPs and software solutions are available from approved Canon Alliance Partners to provide advanced functionality for high-end prepress and graphics applications.	• imagePROGRAF printers integrate into an existing workflow environment.

* Windows® only

Competitive Alternatives

Let's now take a look at the key competitors in the large-format printing marketplace.

HP DESIGNJET Z6100 PRINTER SERIES

Pros: This production printer offers high-speed throughput, long unattended print runs, and durable pigment inks. The embedded spectrophotometer enables users to recalibrate the printer and assists operators in creating their own media profiles. To support color and job management functions, the DJZ6100 comes with more software and workflow options than its predecessors.

Cons: Though HP boasts that the printer is capable of speeds up to 1,143 ft.^{2}/hr., those claims are limited to printing on plain paper and may require a reduction in output quality–making the DJZ6100 printer's high-speed mode potentially impractical in a print-for-pay environment. Because aqueous printers function as the high-quality print engines in most production environments, a printer's performance when producing high-quality graphics on coated stock and glossy paper is perhaps more relevant. When printing in best mode on glossy paper, the DJZ6100 slows down to 98 ft.^{2}/hr. At 105 ft.^{2}/hr. for 2400 x 1200 dpi output, the iPF9000S printer will produce high-quality images faster on coated media and glossy paper. Media handling on the DJZ6100 is limited to roll feed only and it doesn't have borderless printing. Without a cut-sheet media feeder, productivity is compromised by limiting the operator's versatility and media options. HP has no sub-ink tank system or Economy Color Print Mode.

Canon also takes a different approach to calibration. Whereas the Canon solution is an easy-to-use process that takes only 10-20 minutes to automatically apply adjustments across all the printer's media types, HP's process is more complex and laborious, requiring repetition for each media type, 20 minutes each.

Other factors such as power consumption that's 84% higher than the imagePROGRAF S-Series printers, print-heads with fewer nozzles (16,896 in the DJZ6100 vs. 30,720 in the Canon printers), and a much smaller hard drive mean that the DJZ6100 printer's overall productivity may be lower and operating costs may be higher than the imagePROGRAF S-Series printers. Starting at $9,995 for the 42″ version and $15,995 for the 60″ version ($12,495 and $18,500 for the PostScript® versions), HP's DJZ6100 Series are also more expensive to purchase than the iPF9000S printer and iPF8000S printer, making the Canon solution a more affordable option.

HP DESIGNJET Z2100 44" PHOTOPRINTER

Pros: Available only in 24″ and 44″ versions, the 8-color Z2100 is positioned by HP as a high-quality printer for all types of large-format applications, with a particular focus on photography. Customers interested in archival printing may be attracted by HP's claims that prints will last up to 200 years without fading and are water-resistant on certain types of media. A built-in spectrophotometer can be used by operators to calibrate the printer and create their own ICC profiles. Along with the printer, the $5,595 price includes an HP ProPrint Plug-in for Photoshop, the Printer Driver, and HP Color Center software for color management functions. HP does not offer a PostScript version of this printer model.

Cons: While some attractive features are included with the Z2100, HP has unfortunately left several important customer requirements unaddressed. While the Z2100 can achieve an optimized resolution of 2400 x 1200 dpi, the normal mode for this printer is just 600 x 600 dpi. Another important factor that affects the printer's performance is the number of nozzles available to eject ink onto the media. With only 8,443 nozzles spread across all eight ink colors, the Z2100 has far fewer nozzles than the Canon printers, which have 30,720. More nozzles help make the Canon print-heads more reliable and enables high-quality output, even in high-speed print modes.

The Z2100 printer's built-in spectrophotometer provides advanced users with the ability to create their own profiles and calibrate the printer. However, for many customers the process of creating profiles may prove to be time-consuming and burdensome. To take full advantage of this feature, HP customers need to repeat the process for each and every media they want to use. Canon has taken a different, more efficient approach. The built-in calibration function of the S-Series printers provides users with the ability to reset the printer back to the original factory settings and to do so across all types of media in just 10-20 minutes. Because Canon has already created and optimized profiles for a wide variety of media types, this approach enables Canon customers to achieve excellent print quality in less time and with less effort.

EPSON STYLUS PRO 11880 64" WIDE-FORMAT PRINTER

Pros: This new printer, announced by Epson in Q2 2007, is a large 64"-wide printer aimed at the production printing marketplace. With more nozzles in the print-head than previous Espon printers, this new model is expected to be faster than earlier Epson products. A new ink formulation announced by Epson promises a more vivid color space. The expected MSRP for this printer is $14,995.

Cons: This printer is not expected to launch in the United States until late 2007. Though improvements are anticipated with this model, early information released by Epson suggests that the StylusPro 11880 will not be on par with the Canon S-Series printers in terms of productivity, reliability, and quality control. More information on these printers will become available once Epson has launched them into the marketplace.

EPSON STYLUS PRO 9880 44" WIDE-FORMAT PRINTER

Pros: Announced by Epson in Q2 2007, the Stylus Pro 9880 is a 44"-wide printer that also utilizes the new ink formulation with a more vivid color gamut and a new print-head with more nozzles than previous Epson printers. The expected MSRP for this printer is $4,995.

Cons: This printer is not expected to launch in the United States until late 2007. Though improvements are anticipated with this model, early information released by Epson suggests that the StylusPro 9880 will not be on par with the Canon S-Series printers in terms of productivity, reliability, and quality control. More information on these printers will become available once Epson has launched them into the marketplace.

EPSON STYLUS PRO 9800 44" WIDE-FORMAT PRINTER

Pros: Epson targets this 44"-wide printer for use by graphic designers, prepress professionals, and photographers. The piezoelectric print-heads are capable of producing three different sizes of ink droplets–a feature Epson calls Variable-sized Droplet Technology. Each nozzle in the Epson 9800 is capable of producing all three sizes of ink droplets. Normal print mode for the Epson 9800 is 1440 x 720 dpi and a maximum resolution of 2880 x 1440 make this a reasonably high-resolution printer. Epson's pigment inks are durable and color prints are estimated to last over 100 years without fading, while black-and-white prints are claimed not to fade for up to 200 years. The base model 9800 has an MSRP of $4,995 but doesn't include any value-added software other than the print driver. The 9800 Professional includes a ColorBurst RIP with PANTONE® matching and SWOP® certification for an extra $1,000.

Cons: With only 180 nozzles per color for a total of 1,440, the Epson will print much slower in all print modes than the Canon S-Series printers, which have 30,720 nozzles. The relatively low number of nozzles also increases demand on each, thereby shortening each print-head life and increasing the opportunities for misprints and errors. Unlike the Canon printers, the Epson 9800 also requires manual switching between matte black and photo black, which wastes both ink and operator time. By Epson's own estimates (**www.epson.com** Stylus Pro FAQs), the total ink wasted is about 88ml to 117ml per switch. Therefore, switching from one black mode to another wastes a significant amount of ink, money, and time.

iPF9000S FEATURE COMPARISON CHART

Brand	Canon	HP	HP	Epson
Model	iPF9000S	Z6100	DJ5500	Stylus Pro 11880
MSRP	$14,995	$15,995	$15,495	$14,995
Width	60″	60″	60″	64″
Borderless Printing	Yes	No	No	Yes
Print Speed (Glossy Paper/Standard)	~ 105 ft.²/hr.	~ 79 ft.²/hr.	~ 76 ft.²/hr.	TBD
Max. Resolution (dpi)	2400 x 1200	2400 x 1200 Optimized	1200 x 600 Optimized	2880 x 1440
Ink Type	Pigment	Pigment	Pigment	Pigment
Number of Colors	8	8	6	9
Color Set	C, PC, Y, M, PM, BK, MBK, GY	C, Lc, Y, M, Lm, PK, MK, LG	C, Lc, Y, M, Lm, BK	C, Lc, Y, Vm,VLm, PK, MK, Lk, LLk
Total Number of Nozzles	30,720	16,896	3,072	2,880
Size of Ink Droplet	Consistent 4pl	4pl (Lc,Lm,LG,PK) 6pl (C,M,Y,MK)	12pl	Variable; Smallest is 3.5pl
Economy Print Mode	Yes	No	No	No
Auto-switching of Black Inks	Yes	Yes	N/A	Yes
Ink Supply	330/700ml	775ml	680ml	700ml
On-the-fly Ink Replacement	Yes	No	No	Yes
Hard Drive	80GB	40GB	40GB	N/A
Available Workflow and Software Solutions • =included ▲ =optional	• Canon Printer Driver • Web Link • Digital Photo Front-Access • Print Plug-in for Photoshop • Print Plug-in for Digital Photo Professional ▲ PosterArtist 2007 ▲ Optional Third-party RIP	• HP Printer Driver • HP Easy Printer Care • HP Color Center • HP Professional PANTONE Emulation • i1 Color Technology ▲ HP Advanced Profiling Solution ▲ Adobe PostScript 3™ RIP	• HP Printer Driver ▲ Adobe PostScript 3 RIP ▲ Optional Third-party RIP	• Epson Printer Driver • MyEpsonprinter Other software and workflow solutions are TBD.
Printer Calibration Function	Yes	Yes	No	No
Ambient Light Adjustment	Yes	No	No	No
Operating Power Consumption	190 Watts	350 Watts	400 Watts	TBD

COLOR LEGEND

C = Cyan	M = Magenta	BK = Black	LLk = Light, Light, Black	Y = Yellow
PC = Photo Cyan	PM = Photo Magenta	MBK = Matte Black	GY = Gray	
Lc = Light Cyan	Lm = Light Magenta	MK = Matte Black	LG = Light Gray	
VLm = Vivid Light Magenta	Vm = Vivid Magenta	PK = Photo Black	Lk = Light Black	

iPF8000S FEATURE COMPARISON CHART

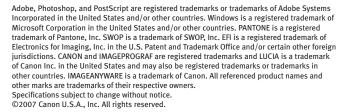| Brand	Canon	HP	HP	Epson	Epson
Model	iPF8000S	Z6100	Z2100	Stylus Pro 9880	Stylus Pro 9800
MSRP	$5,995	$9,995	$5,595	$4,995	$4,995
Width	44"	42"	44"	44"	44"
Borderless Printing	Yes	No	Glossy Media Only	Yes	Yes
Print Speed (Glossy Paper/Standard)	~ 90 ft.^{2}/hr.	~ 79 ft.^{2}/hr.	~ 38 ft.^{2}/hr.	TBD	~ 26 ft.^{2}/hr.
Max. Resolution (dpi)	2400 x 1200	2400 x 1200 Optimized	2400 x 1200 Optimized	2880 x 1440	2800 x 1440
Ink Type	Pigment	Pigment	Pigment	Pigment	Pigment
Number of Colors	8	8	8	9	8
Color Set	C, PC, Y, M, PM, BK, MBK, GY	C, Lc, Y, M, Lm, PK, MK, LG	C, Lc, Y, M, Lm, PK, MK, LG	C, Lc, Y, Vm,VLm, PK, MK, Lk, LLk	C, Lc, Y, M, Lm, Lk, LLk, PK or MK
Total Number of Nozzles	30,720	16,896	8,448	2,880	1,440
Size of Ink Droplet	Consistent 4pl	4pl (Lc,Lm,LG,PK) 6pl (C,M,Y,MK)	4pl (Lc,Lm,LG,PK) 6pl (C,M,Y,MK)	Variable; Smallest is 3.5pl	Variable; Smallest is 3.5pl
Economy Print Mode	Yes	No	No	No	No
Auto-switching of Black Inks	Yes	Yes	Yes	Yes	No
Ink Supply	330/700ml	775ml	130ml	TBD	110/220ml
On-the-fly Ink Replacement	Yes	No	No	TBD	Yes
Hard Drive	80GB	40GB	40GB	N/A	N/A
Available Workflow and Software solutions • =included ▲ =optional	• Canon Printer Driver • Web Link • Digital Photo Front-Access • Print Plug-in for Photoshop • Print Plug-in for Digital Photo Professional ▲ PosterArtist 2007 ▲ Optional Third-party RIPs	• HP Printer Driver • HP Easy Printer Care • HP Color Center • HP Professional PANTONE Emulation • i1 Color Technology ▲ HP Advanced Profiling Solution ▲ Adobe PostScript 3 RIP	• HP Printer Driver • HP Easy Printer Care • HP Color Center • HP Photosmart Pro Plug-in for Photoshop • i1 Color Technology ▲ HP-GL2 Upgrade Kit ▲ HP Advanced Profiling Solution ▲ EFI® Designer Edition RIP 5.1 ▲ Optional Third-party RIPs	• Epson Printer Driver • MyEpsonprinter Other software and workflow solutions are TBD.	• Epson Printer Driver • Epson Print Job ▲ ColorBurst RIP ▲ Optional Third-party RIPs
Printer Calibration Function	Yes	Yes	Yes	No	No
Ambient Light Adjustment	Yes	No	No	No	No
Operating Power Consumption	190 Watts	350 Watts	200 Watts	TBD	55 Watts

Want to learn more or have a big idea for using Canon imagePROGRAF Large-Format Printers?

Go to www.usa.canon.com/imageprograf

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