HP Designjet Z3100 Photo Printer series

BREAKTHROUGH COLOR: Achieve consistent & accurate color with the first ever embedded spectrophotometer[1]
- **Automated and simple creation of ICC profiles.** HP's embedded spectrophotometer and an automated workflow bring simplicity and reliability to accurate profiling and precise printer calibration. HP's Advanced Profiling Solution offers additional options for profiling and calibrating your printing system.
- **Broad gamut coverage.** Over 80% PANTONE® coverage[2], and full compliance with prepress standards: SWOP, ISO, GRACOL, EUROSCALE, TOYO, FOGRA, and 3DAP.
- **Expect consistent color from print to print.** Calibrate the printer and obtain print-to-print and printer-to-printer color repeatability.

NO LIMITS: Get exquisite prints that resist fading for over 200 years[3] with a 12-ink printing system using HP Vivera pigment inks
- **Fade and water resistant.** Color and b&w prints resist fading for over 200 years on a range of HP papers and HP Hahnemühle papers and are water resistant on HP canvas, photo and proofing papers.
- **Beautiful black-and-white prints with the HP Quad-Black ink set.** HP Vivera pigment inks deliver true gray neutrality under different lighting conditions and produce smooth continuous tones and deep rich blacks.
- **Superior gloss uniformity and elimination of bronzing with HP Gloss Enhancer[4].** Used on glossy and semigloss photo papers to produce images with uniform gloss from highlights to shadows.

TRUE PRINT CONFIDENCE: Print with greater confidence thanks to dependable HP technologies
- **Eliminate trial and error with real-time layout and orientation preview.** Take the guess-work out of margins. Save time and materials.
- **Glide effortlessly through color management and printing** with the HP Color Center tool.
- **Save time with HP Easy Printer Care/HP Printer Utility software.** Monitor the status of printers & supplies and get the latest updates.
- **Expect always-on quality** with automatic servicing routines that are economical and convenient thanks to proactive printhead maintenance.
- **Have your questions answered.** Application settings and color management consultation at your finger tips with the HP Knowledge Center.

(1   With i1 color technology.
(2   HP's preliminary, internal results have shown that the HP Designjet Z Photo Printer series is capable of successfully simulating over 80% of the PANTONE colors. HP Designjet Z2100 and Z3100 Photo Printers are pending PANTONE licensing
(3   Display permanence rating by Wilhelm Imaging Research, Inc. on a range of HP creative and specialty media. For details: http://www.hp.com/go/supplies/printpermanence
(4   Bronzing is eliminated as an image-quality issue when HP Gloss Enhancer is used. HP Gloss Enhancer is used on photo paper, with the exception of matte-finish papers.

hp ®
i n v e n t

DESIGNED FOR CREATIVE PROFESSIONALS

PROFESSIONAL PHOTOGRAPHERS

Create exquisite exhibition prints, portfolios, and digital albums

«The results are remarkable: something I feel proud and confident about putting out in public in a museum.»
Joel Meyerowitz, Joel Meyerowitz Photography

Consistently beautiful, whether it's in color or black and white

• Prints resist fading for over 200 years.[3]
• Smooth color transitions and highlight and shadow details are preserved.
• Achieve truly neutral grays under different lighting conditions, continuous tones, uniform gloss, rich blacks, and the elimination of bronzing as an image-quality issue.[4]
• Switch between matte and glossy papers without having to swap black cartridges.

A care-free experience

• Printing of accurate and consistent colors is effortless thanks to the HP Color Center and automated media profiling.
• Added to Adobe® Lightroom is a Calibrate Printer button, enabling you to launch the printer's color management tools directly from the application, the result of close collaboration between HP and Adobe.
• Integrate one of a range of commercially available photo RIPs, such as the ImagePrint v.6 RIP from ColorByte. This RIP gives you advanced options, including advanced multiple-image placement, black-and-white split-toning, and PostScript® & PDF printing.

«The black and whites I printed are absolutely perfect. They're neutral in their grays, they have wonderful tonality and very, very heavy blacks (which I love).»
Thomas Hoepker, Magnum Photographer

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«By accessing printer calibration directly from the Lightroom Print module, photographers using the HP Designjet Z series printers will be assured they're getting the most accurate results possible.»
Kevin Connor, Senior Director, Professional Digital Imaging, Adobe

DIGITAL FINE ARTISTS

«With the simplicity of the color profiling on this printer, HP has taken great strides in making it very simple to get great prints the first time.»
Bonny Lhotka, Digital Atelier

Free to experiment

«Hahnemühle FineArt is proud to be working with HP in bringing to market a user experience of this caliber. This is a great example of two market leaders capitalizing on synergies to raise the bar of expectation in the digital imaging world.»
Norbert Klinke, Director Sales and Marketing, Hahnemühle FineArt

Get true, consistent, and lasting colors on the substrates of your choice

• Realize your digital fine art in breathtaking color prints that resist fading for over 200 years[3].
• You're free to use almost any art substrate you like with the confidence of retaining color fidelity and consistency.
• Colors are precisely controlled thanks to automated media profiling.

Fits seamlessly into the workflows of digital artists

• HP offers an extensive range of canvases, fine art papers, and photo papers for museum-quality results.
• HP and Hahnemühle have designed beautiful smooth, textured, and watercolor fine art papers.
• Print the desired colors on the first attempt from Adobe Photoshop® thanks to the free HP ProPrint Plug-in, which synchronizes application and driver settings.

Produce accurate, consistent, and stable prepress contract proofs

«The HP Designjet Z3100 printer is a major step forward for prepress. It has got a built-in spectrophotometer, which calibrates the machine and brings it into a known state, and, because it's built in, it's error free. This printer is like a color management center.»

Allan Roche, Pixel CMS Ltd.

Automated profiling, stable colors, and an extremely broad gamut
- Accurate and consistent colors are assured through automated ICC profile generation.
- Colors stay true and stabilize at less than 1 ΔE in under 5 minutes.
- The printer covers over 80% of PANTONE® colors(2 and completely encompasses the SWOP, ISO, GRACOL, EUROSCALE, TOYO, FOGRA, and 3DAP gamuts.

Integrated solutions that drastically shorten your workflow
- Automated closed-loop color consistency is achieved with the printer's embedded spectrophotometer, featuring GretagMacbeth's leading i1 color technology.
- Integrate one of a range of commercially available proofing RIPs, such as the Colorproof o4 RIP from GMG, for a customized proofing solution. This leading prepress RIP combines with the printer to form a cost-effective solution that verifies the press-standard color compliance of your proofs.
- Or add the optional EFI Designer Edition 5.1 RIP for HP (XL version), developed for graphic designers and providing CMYK workflow support, PostScript and PDF printing, and accurate spot color management.

«Metamerism is very important for us, and I've seen that this inkjet printer has the lowest metamerism in the marketplace.»
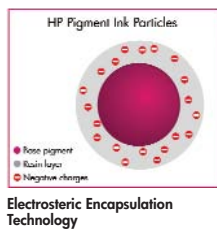
Allan Roche, Pixel CMS Ltd.

«By combining the embedded eye-one color spectrophotometer together with the latest printing technologies found in the new HP Designjet Z Photo Printers, new ground-breaking standards in large-format printing have been established, providing the industry with a new benchmark.»

Francis Lamy, Executive VP and CTO, X-Rite

KEY TECHNOLOGIES

HP Vivera pigment inks offer outstanding image quality and fade resistance on a wide variety of photo and fine art media, along with water resistance on a range of HP creative and specialty media. HP's proprietary Electrosteric Encapsulation Technology optimizes the pigment chemistry and ink properties for stability and performance to ensure a broad color gamut, print permanence, excellent gloss uniformity, and reliable, accurate, and consistent printing.

The HP embedded spectrophotometer with i1 Color Technology from GretagMacbeth is mounted on the printer carriage and revolutionizes professional color workflows by automating media profiling. It allows users to automatically generate custom RGB ICC profiles for their preferred media and provides accurate measurements for printer calibration that delivers print-to-print and printer-to-printer color consistency. Also, with the optional HP Advanced Profiling Solution, you can edit and modify existing profiles and create CMYK profiles.

HP's 12-ink printing system involves six HP 70 Printheads, each printing two colors of ink with 1,056 nozzles per color. The system includes the HP Gloss Enhancer and HP Vivera pigment inks in seven colors and four blacks. These inks deliver an exceptionally broad color gamut for photographic and graphics art applications, superb neutral tones, and deep blacks on matte, glossy, semi-gloss, and fine art papers.

An extensive media portfolio: HP offers a portfolio of 9 photo papers, 10 digital fine art papers, 3 proofing papers, 9 bond and coated papers, and over 30 other HP media. All have been tested with HP 70 Vivera pigment inks to deliver consistent, museum-quality prints that withstand the demands of handling, display and storage expected of professional prints.

SERVICES

The HP Start-up kit, HP Knowledge centre, and HP Easy Printer Care (Windows®)/Printer Utility (Mac®) are all complimentary services provided by HP to assist you during installation and throughout your printing workflow; visit www.hp.com/go/graphic-arts for full details. For enhanced services purchase from the HP Professional Graphic Services portfolio, which includes:
- **HP Installation Care Pack Services:** Easier to get your printer up and running in minimum time. Stand alone and network options available.
- **The HP Color Expert Service powered by X-Rite Color Services:** Problems getting the right color from your printer? Call one phone-number for immediate, reliable answers to all of your questions on color, color management software and hardware, RIPs, design applications, output devices, drivers and operating systems.
- **HP Care Pack and Post Warranty Services:** Reduce downtime and mitigate the risk of unbudgeted repair costs. 3-5 year warranty extensions available.
See back page for ordering information and visit www.hp.com/go/pgs for more details on all options.

Technical specifications

Print speed	
Best	15 min/page on D/A1 or up to 17 ft²/h (color image on glossy paper) 9.8 min/page on D/A1 or up to 31 ft²/h (color image on coated paper)
Normal	7.9 min/page on D/A1 or up to 38 ft²/h (color image on glossy paper) 4.2 min/page on D/A1 or up to 72 ft²/h (color image on coated paper)
Draft	5.8 min/page on D/A1 or up to 52 ft²/h (color image on glossy paper) 2.0 min/page on D/A1 or up to 150 ft²/h (color image on coated paper)

Resolution	
Best (Color and B&W)	2400 x 1200 optimized dpi
Normal (Color and B&W)	600 x 600 dpi
Draft (Color and B&W)	600 x 600 dpi

Memory	
	128 MB Standard memory, 40 GB hard disk

Media	
Handling	Sheet feed, roll feed, automatic cutter (cuts all media except canvas)
Types	Photographic paper (satin, gloss, semi-gloss, matte), proofing paper (high-gloss, semi-gloss, matte), fine art printing material (canvas, smooth, textured, watercolor), self-adhesive and vinyl (polypropylene, vinyl), sign and banner (display film, banner, scrim, polypropylene, Tyvek®, outdoor paper), backlit, bond and coated (bond, coated, heavyweight coated, super heavyweight coated)
Maximum weight	500 g/m²
Size	**HP Designjet Z3100 24" Photo Printer:** All standard sizes larger than Letter/A4 up to 24 in/609 mm wide **HP Designjet Z3100 44" Photo Printer:** All standard sizes larger than Letter/A4 up to 44 in/1117 mm wide
Maximum external roll diameter	5.11 in/140 mm
Maximum roll length	300 ft/91 m

Printing	
Margins	**Roll:** 0.2 x 0.2 x 0.2 x 0.2 in/5 x 5 x 5 x 5 mm (full bleed available on glossy roll media) **Sheet:** 0.2 x 0.2 x 0.2 x 0.55 in/5 x 5 x 5 x 14 mm
Technology	HP Vivera pigment inks, HP Quad-Black ink set, HP Embedded Spectrophotometer
Ink cartridge colors	Light cyan, light magenta, light gray, photo black, gray, gloss enhancer, magenta, yellow, matte black, red, green, blue
Ink types	HP Vivera pigment inks and HP Gloss Enhancer
Ink drop	4 pl (light cyan, light magenta, light gray, photo black, gray, gloss enhancer) 6 pl (magenta, yellow, matte black, red, green, blue)
Ink cartridge size	130 ml ink cartridges (69 ml introductory cartridges included in 24" printer box, not available as replacement cartridges); 130 ml Ink Cartridge Twin Packs also available
Nozzles	2 colors per printhead, 1056 nozzles per color
Maximum print length	300 ft/91 m (OS and application dependent)
Line accuracy	+/- 0.2 %
Lightfastness	Over 200 years[3] fade resistance
Water resistance	Water-resistant on a range of HP creative and specialty media
Connectivity	**Standard:** One 10/100 BT Ethernet, One USB 2.0 high-speed certified port, One EIO Jetdirect accessory slot **Optional:** HP Jetdirect EIO print servers
Print Languages	**Standard:** HP PCL3GUI **Optional:** PS via optional software RIP, HP-GL2/RTL optional software solution

Image quality	
Color accuracy	Median <1.6 dE2000, 95% of colors <2.8 dE2000[5]
Short term color stability	<1 dE2000 in less than 5 minutes[6]
Long term print-to-print repeatability	Average <0.5 dE2000, 95% of colors <1.4 dE2000[6]
Maximum optical density	4 L* / 2.5 D[7]

(5 ICC absolute colorimetric accuracy on HP Proofing Matte paper
(6 With HP Premium Instant Dry Photo Satin media, right after calibration
(7 With HP Premium Instant Dry Photo Gloss media
(8 Replacement ink cartridges available are HP 70 130 ml Ink Cartridges and HP 70 130 ml Ink Cartridge Twin Packs. For more information, visit www.hp.com/go/pageyield

Environmental ranges	
Operating temperature	41 to 104°F/5 to 40°C
Recommended operating temperature	59 to 95°F/15 to 35°C
Storage temperature	-13 to 131°F/-25 to 55°C
Recommended operating humidity	20 to 80% RH
Recommended storage humidity	0 to 95% RH

Acoustic	
Sound pressure, active	44 dB(A)
Sound pressure, standby	29 dB(A)
Sound power, active	6.5 B(A)
Sound power, standby	4.4 B(A)

Power consumption	
Active	200 watts
Maximum	200 watts
Powersave	27 watts
Standby	43 watts
Power requirements	Input voltage auto-ranging 100 to 240 VAC (+/- 10%), 50/60Hz (+/- 3 Hz), 2 Amp max

Certification	
Safety	IEC 60950-1 compliant, EU LVD and EN 60950-1 compliant, certified by CSA for Canada and US, Argentina IRAM, Singapore PSB, Russia GOST, China CCIB, Taiwan BSMI
Electromagnetic	Compliance for Class B products: EU (EMC Directive), USA (FCC rules), Canada (DoC), Australia (ACA), New Zealand (MoC), China (CCC), Japan (VCCI), Korea (MIC) and Taiwan (BSMI)
Energy Star® compliant	Yes
Press standard	100% coverage of SWOP, ISO, GRACOL and 3DAP

Warranty	
Warranty	1 year warranty with on-site, next business-day service

Warranty extensions		
	UF044PE	HP 1 yr Post Warranty Next-Business-Day Service
	HC132PE	HP 1yr Post Warranty Phone Only Hardware Service

HP Care Pack Services		
	UF035E	HP 3 yr Next-Business-Day Service
	UF036E	HP 4 yr Next-Business-Day Service
	UF037E	HP 5 yr Next-Business-Day Service
	H7604E	HP Installation mid-high Designjet Service
	H4518E	HP Network Install Designjet Windows®/Mac® Service

Color Services		
	UF050E	1yr/5 incidents HP Color Expert Service
	UF315E	1 case HP Color Expert Service

More information on products, technologies and services available at www.hp.com/go/graphic-arts

Recommended system requirements	
Macintosh	Mac OS X v10.2, v10.3, v10.4 and later, PowerPC G4, G5, or Intel Core Processor, 1 GB Ram, 2 GB available hardware disk
Windows	Microsoft Windows XP or 2000: Pentium IV, 3 GHz, 1GB RAM, 2 GB available hard disk

Dimensions (w x d x h)	
Printer with stand	**HP Designjet Z3100 24" Photo Printer:** 49.7 x 28.8 x 41.2 in 1262 x 732 x 1047 mm **HP Designjet Z3100 44" Photo Printer:** 69.7 x 28.8 x 41.2 in 1770 x 732 x 1047 mm
Shipping dimensions	**HP Designjet Z3100 24" Photo Printer:** 57.8 x 30.7 x 29.1 in 1470 x 780 x 740 mm **HP Designjet Z3100 44" Photo Printer:** 77.2 x 30.5 x 23.6 in 1960 x 775 x 600 mm

Weight	
Printer with stand	**HP Designjet Z3100 24" Photo Printer:** 143 lb/65 kg **HP Designjet Z3100 44" Photo Printer:** 189 lb/86 kg
Shipping	**HP Designjet Z3100 24" Photo Printer:** 225 lb/102 kg **HP Designjet Z3100 44" Photo Printer:** 271 lb/123 kg

What's in the box

HP Designjet Z3100 24" Photo Printer: spindle, printheads (6 x 2 colors), ink cartridges (12 x 69 ml)(8, media high gloss photo sample roll (24 in x 15 ft), stand (24"), rear tray (24"), adaptor 3" KIT for spindle (2), quick reference guide, set-up poster, USB cable, power cord, HP Start-up kit including printer software and training

HP Designjet Z3100 44" Photo Printer: spindle, technical spindle, printheads (6 x 2 colors), ink cartridges (12 x 130 ml), media high gloss photo sample roll (36" x 15 ft), stand (44"), rear tray (44"), 3" KIT for spindle (2), quick reference guide, set-up poster, USB cable, power cord, HP Start-up kit including printer software and training

Ordering information

Product
Q5669A HP Designjet Z3100 24" Photo Printer
Q6659A HP Designjet Z3100 44" Photo Printer

Accessories
Q6643D EFI Designer Edition 5.1 RIP for HP XL International
Q6692A HP-GL/2 Upgrade Kit for the HP Designjet Z2100/Z3100 Photo series
Q6695A HP Advanced Profiling Solution International
Q6698A HP Designjet ZX100 44 inch Spindle for printing on technical media
Q6699A HP Designjet ZX100 44 inch Spindle for graphics (spare, for easy media switching)
Q6700A HP Designjet ZX100 24 inch Spindle for graphics (spare, for easy media switching)

Printing supplies
Printheads
C9405A HP 70 Light Magenta & Light Cyan Printhead
C9406A HP 70 Magenta & Yellow Printhead
C9407A HP 70 Photo Black & Light Gray Printhead
C9408A HP 70 Blue & Green Printhead
C9409A HP 70 Matte Black & Red Printhead
C9410A HP 70 Gloss Enhancer & Gray Printhead

130 ml ink cartridges
C9448A HP 70 Matte Black 130 ml Ink Cartridge
C9449A HP 70 Photo Black 130 ml Ink k Cartridge
C9450A HP 70 Gray 130 ml Ink Cartridge
C9451A HP 70 Light Gray 130 ml Ink Cartridge
C9453A HP 70 Magenta 130 ml Ink Cartridge
C9454A HP 70 Yellow 130 ml Ink Cartridge
C9455A HP 70 Light Magenta 130 ml Ink Cartridge
C9456A HP 70 Red 130 ml Ink Cartridge
C9457A HP 70 Green 130 ml Ink Cartridge
C9458A HP 70 Blue 130 ml Ink Cartridge
C9459A HP 70 Gloss Enhancer 130 ml Ink Cartridge
C9390A HP 70 Light Cyan 130 ml Ink Cartridge

Ink cartridge twin packs
CB339A HP 70 Matte Black 130 ml Ink Cartridge Twin Pack
CB340A HP 70 Photo Black 130 ml Ink Cartridge Twin Pack
CB341A HP 70 Gray 130 ml Ink Cartridge Twin Pack
CB342A HP 70 Light Gray 130 ml Ink Cartridge Twin Pack
CB344A HP 70 Magenta 130 ml Ink Cartridge Twin Pack
CB345A HP 70 Yellow 130 ml Ink Cartridge Twin Pack
CB346A HP 70 Light Magenta 130 ml Ink Cartridge Twin Pack
CB347A HP 70 Red 130 ml Ink Cartridge Twin Pack
CB348A HP 70 Green 130 ml Ink Cartridge Twin Pack
CB349A HP 70 Blue 130 ml Ink Cartridge Twin Pack
CB350A HP 70 Gloss Enhancer 130 ml Ink Cartridge Twin Pack
CB351A HP 70 Light Cyan 130 ml Ink Cartridge Twin Pack

Media supplies
Q6626A HP Super Heavyweight Plus Matte Paper 24 in x 100 ft/610 mm x 30.5 m
Q7973A HP Matte Litho-realistic Paper 36 in x 100 ft/914 mm x 30.5 m
Q7991A HP Premium Instant-dry Gloss Photo Paper 24 in x 75 ft/610 mm x 22.9 m
Q7992A HP Premium Instant-dry Satin Photo Paper 24 in x 75 ft/610 mm x 22.9 m
Q8704A HP Artist Matte Canvas 24 in x 20 ft/610 mm x 6.1 m
Q8708A HP Collector Satin Canvas 24 in x 20 ft/610 x 6.1 m
Q8712A HP Universal Matte Canvas 24in x 20ft/610 x 6.1 m
Q8759A HP Professional Satin Photo Paper 24 in x 50 ft/610 mm x 15.2 m
Q8663A HP Professional High-gloss Contract Proofing Paper 24 in x 100 ft/610 mm x 30.5 m
Q7991A HP Professional Semi-gloss Contract Proofing Paper 24 in x 100 ft/610 mm x 30.5 m
Q8636A HP Hahnemühle Textured Fine Art Paper 265 g/m² 24 in x 35 ft/610 mm x 10.7 m
Q8732A HP Hahnemühle Smooth Fine Art Paper 265 g/m² 24 in x 35 ft/610 mm x 10.7 m
Q1984A HP Hahnemühle Watercolor Paper 36 in x 38 ft/914 mm x 11.5 m
Q8741A HP Aquarella Art Paper 24 in x 35 ft/610 mm x 10.67 m
Q1724A HP Canvas Paper 180 g/m² 36 in x 35 ft/914 mm x 10.7 m

More HP media sizes and weights available at www.hp.com/go/designjet/supplies