



Choosing a Grand-Format Digital Printer

SGIA has charted more than 150 grand-format, digital, roll-to-roll printers on the market from more than 30 major manufacturers. The specifications in this chart offer a baseline for comparison when shopping for equipment, to see the variation offered.

- **Manufacturer** is listed with the associated website.
- **Product:** The list is current, but the model names change constantly.
- **Ink Type** indicates whether the model runs UV, UV-LED, solvent, eco-solvent, dye sublimation or pigment inks.
- **Inkset** is typically CMYK, plus white if it is included with the model. O stands for orange, while V is varnish. It should be noted that some manufacturers refer to varnish as clear. Primer is noted as P.
- **Maximum Resolution:** This information is listed in the head travel direction (x) first, media (y) direction second.
- **Media Width:** Depending on the printer's configuration, the maximum printable media width is listed in inches.
- **Configuration:** Roll-to-Roll devices can handle roll media only, while hybrid printers have the option for a flatbed configuration.

Determine each ink system's benefits.

Eco- (or mild) Solvent Inks tend to have a low odor during production, but may

emit hazardous compounds in the air. The variety in state regulations means these inks could be classified as having VOC content in one state but not in another. It's important to check with state regulations to see if any appropriate measures need to be incorporated. The "eco" in eco-solvent originally referred to its economical price rather than the ink being ecological or environmentally friendly, which the ink may or may not be. These inks generally contain glycol esters or glycol ether esters, which are both derived from mineral oil. Users should keep in mind that less odor does not necessarily mean fewer chemicals are released during production.

Solvent Inks are commonly regarded as the most economical inks for digital printing today, in terms of equipment costs and maintenance expenses. They produce highly durable outdoor prints, and media is less costly than coated media for aqueous inks. It should also be noted that they dry quickly, but emit volatile organic compounds. For printers that are producing a larger volume of prints with conventional solvent inks (or using wide-format digital printers), an appropriate ventilation system may be needed to safely and effectively manage VOCs and properly mitigate them.

UV Inks save on production costs and media versatility despite having up-front equipment costs that are higher than other digital printers. Part of the initial expense comes from the higher cost for the ink's raw materials. UV ink handling and cleaning requires gloves, and people can become sensitized to UV ink. They

also require UV lamps on the printheads for the purpose of ink curing; these must be changed periodically.

Latex is a term used to describe a water-based dispersion of very small latex polymer particles. The in-printer curing process (heaters) evaporates the water-based ink components and causes the latex particles to coalesce into a durable film that encapsulates the pigments and bonds to the print media. Prints have high stretch performance and conformability. The substrate is heated for printing and high heat is used for curing/drying. Considerations include the energy consumption and cost of the onboard drying system.

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Grand Format Digital Printers Roll-To-Roll 96" and Greater

Company/Web Site	Product	Ink Type	Inkset	Max. Resolution	Media Width	Config
Agfa Graphics www.agfapitman.com	Anapurna M2500	UV	CMYKcLm+W	720 x 1440	98	Hybrid
	Anapurna M3200 RTR	UV	CMYKcLm	720 x 1440	126	R2R
	Ardeco 3308	Aqueous Dye-Sub	CMYK	600 x 900	126	R2R
	Ardeco 3312	Aqueous Dye-Sub	CMYK	600 x 900	126	R2R
	Jeti 1224 HDC FTR	UV	CMYK+W	480 x 1200	96	Hybrid
	Jeti 3020 Titan (FTR)	UV	CMYK, Lc, Lm, W	480 x 1200	126	Hybrid
	Jeti TitanX	UV	CMYK, Lc, Lm, W	480 x 1200	126	Hybrid
Anhui LIYU Computer Equipment Manufacturing Co., Ltd. www.ahliyu.com	Maxima PZ3204-KM	Solvent	CMYK or CMYK, Lc, Lm	720 x 1440	130	R2R
	Maxima PZ3206-KM	Solvent	CMYK or CMYK, Lc, Lm	720 x 1440	130	R2R
	Maxima PZ3208-KM	Solvent	CMYK or CMYK, Lc, Lm	720 x 1440	130	R2R
	Maxima PZ3204-KX	Solvent	CMYK or CMYK, Lc, Lm	360 x 1440	130	R2R
	Maxima PZ3206-KX	Solvent	CMYK or CMYK, Lc, Lm	360 x 1440	130	R2R
	Maxima PZ3208-KX	Solvent	CMYK or CMYK, Lc, Lm	360 x 1440	130	R2R
	Innova PS3202	Solvent	CMYK	600 x 1600	129.9	R2R
	InnovaPS3204	Solvent	CMYK	600 x 1600	129.9	R2R
	Innova PS3208	Solvent	CMYK	600 x 1600	129.9	R2R
	Apollo PTP3202-KC	Solvent	CMYK	360 x 1440	125.9	R2R
	Apollo PTP3204-KC	Solvent	CMYK	360 x 1440	125.9	R2R
	Apollo PTP3206-KC	Solvent	CMYK, Lc, Lm	360 x 1440	125.9	R2R
	Apollo PTP3204-KL	Solvent	CMYK	720 x 1080	125.9	R2R
	Apollo PTP3206-KL	Solvent	CMYK, Lc, Lm	720 x 1080	125.9	R2R
	Apollo PTP3208-KL	Solvent	CMYK	720 x 1080	125.9	R2R
Evolution PE3204	Solvent	CMYK	1440	129.9	R2R	
Evolution PE3206	Solvent	CMYK, Lc, Lm	1440	129.9	R2R	
Evolution PE3208	Solvent	CMYK	1440	129.9	R2R	
CET Color www.cetcolor.com	K-500hl	UV-LED	CMYK+W	1800	126	Hybrid
	X-500h	UV	CMYK, Lc, Lm, W	1200	100	Hybrid
	X-1000hl	UV	CMYK, Lc, Lm, W, V	1200	126	Hybrid
DGI www.dgi-net.com	VE-3204D	Eco-Solvent	CMYK	720x1440	127.5	R2R
	PQ-3204	Solvent	CMYK	800	129.9	Hybrid
	PS3204D	Solvent	CMYK, Lc, Lm	720	129.9	Hybrid
	PS3206S	Solvent	CMYK, Lc, Lm	720	129.9	Hybrid
	XP3204T	Solvent	CMYK	1110	130	Hybrid
	XP2506DX	Solvent	CMYK, Lc, Lm	1110	102	Hybrid
Digital Sign Technologies Inc. www.digitalsigntech.com	Matrix 364	Solvent, Solvent Dye-Sub, Aqueous Dye Sub	N/A	600	125.9	R2R
	Matrix 364UV	UV	N/A	600	125.9	R2R
	Matrix 564	Solvent, Solvent Dye-Sub, Aqueous Dye Sub	N/A	600	125.9	R2R
Digitex Printing Technologies www.gunsjet.com	R5-SR/WR	Pigment, Solvent	CMYK	1200	125.9	R2R
	E5a-SR/WR3202	Eco-Solvent, Dye-Sub Direct, Dye Sub Transfer	CMYK, Lc, Lm	1440	125.9	R2R
	E5A-DS3202	Dye-Sub	CMYK	2160	125.9	R2R
	R5-LED	UV-LED	CMYK	1200	125.9	R2R
Dilli Co. www.dili.co.kr	NT2506WS	UV	CMYK, Lc, Lm, W	720 x 1440	98.4	Hybrid
	NT2504D-WZV	UV	CMYK, W, V	720 x 1440	98.4	Hybrid
	NT2504D-WZ	UV	CMYK, W	720 x 1440	98.4	Hybrid
Durst Image Technology www.durstus.com	Rho P10 250HS	UV	CMYK (Optional Lc, Lm, W, O, V)	1000	98	Hybrid
	Rho P10 250	UV	CMYK (Optional Lc, Lm, W, O, V)	1000	98	Hybrid
	Rho 312R	UV	CMYK (Optional Lc, Lm, W, Spot)	900	126	R2R
	Rho 512R	UV	CMYK (Optional Lc, Lm, W, Spot)	900	196.8	R2R
	Rho 1012	UV	CMYK (Optional Lc, Lm, O, V)	1000	98	Hybrid
	Rho 1030	UV	CMYK (Optional Lc, Lm, O, V)	600	98	Hybrid

*SGIA Members are listed in bold.

Company/Web Site	Product	Ink Type	Inkset	Max. Resolution	Media Width	Config
Durst Image Technology www.durstus.com	Rho 1312	UV	CMYK (Optional Lc, Lm, O, V)	1000	98	Hybrid
	Rho 1330	UV	CMYK (Optional Lc, Lm, O, V)	600	98	Hybrid
	Rho P10 320R	UV	CMYK (Optional Lc, Lm, W, O, V)	1000	125.9	R2R
	Rho 320R HS	UV	CMYK (Optional Lc, Lm, W, O, V)	600	125.9	R2R
	Rhotex 322	Dye-Sub	CMYK (Optional Lc, Lm, Lk, Spot)	1200	125.9	R2R
EFI www.efi.com	VUTEK HS100 Pro	UV	CMYKLcLmLyLk+W	1000	126.5	Hybrid
	VUTEK GS5000r	UV	CMYK+W	1000	198	R2R
	VUTEK GS5500LXr Pro	UV-LED	CMYKLcLmLyLk+W	n/a	198	R2R
	VUTEK GS3250LXr Pro	UV-LED	CMYKLcLm	600	126.5	R2R
	VUTEK GS3250r	UV	CMYKLcLm	1000	126.5	R2R
	VUTEK GS3250LX	UV-LED	CMYKLcLmLyLk+W	1000	126.5	Hybrid
	VUTEK GS3250	UV	CMYKLcLmLyLk+W	1000	126.5	Hybrid
	VUTEK GS3250 Pro-TF	UV	CMYKLcLmLyLk+W	1080	126.5	Hybrid
	VUTEK QS3 Pro	UV	CMYKLcLm+W	1000	126.5	Hybrid
	VUTEK QS3	UV	CMYKLcLm+W	1000	126.5	Hybrid
	VUTEK TX3250r	Solvent Dye-Sub	CMYKLcLmLyLk	1080	126.5	R2R
FLORA/Shenzhen RunTianZhi Digital Equipment Co. www.floradigital.com.cn	EF1 R2335	UV	CMYK	1200 x 600	126.5	R2R
	F1 320UV Turbo	UV	CMYK or CMYK, Lc, Lm+W	720 x 1440	125.9	R2R
	F1 320UV Hybrid	UV	CMYK or CMYK, Lc, Lm+W	1440 x 1440	129.9	Hybrid
	HJII 3200UV	UV	CMYK or CMYK, Lc, Lm+W	746 x 1080	125.9	R2R
	HJII 5000UV	UV	CMYK or CMYK, Lc, Lm+W	746 x 1080	196.8	R2R
	HJII 5000SE	Solvent	CMYK or CMYK, Lc, Lm	360 x 720	196.8	R2R
	HJII 5000SW	Solvent	CMYK or CMYK, Lc, Lm	400 x 600	196.8	R2R
	HJII 5000P	Eco Solvent	CMYK or CMYK, Lc, Lm+W	720 x 1200	196.8	R2R
	LJ 320K	Eco Solvent	CMYK	720 x 1440	125.9	R2R
	LJ 320P	Eco Solvent	CMYK	800 x 1200	125.9	R2R
	LJ 320G	Eco Solvent	CMYK	600 x 1200	125.9	R2R
	LJ 320SE	Solvent	CMYK or CMYK, Lc, Lm	720 x 720	125.9	R2R
	LJ 320SW	Eco Solvent	CMYK	600 x 600	125.9	R2R
	LJ 320X	Solvent	CMYK	720 x 720	125.9	R2R
FUJIFILM Graphic Systems Division www.fujifilmgraphics.com	Uvistar Pro-8 3532	UV	CMYKLcLmLk	600	150	Hybrid
	Uvistar Pro-8 5032	UV	CMYKLcLmLk	600	209	Hybrid
	Uvistar Pro-8W 3532	UV	CMYKLcLmLk	600	150	Hybrid
	Uvistar Pro-8W 5032	UV	CMYKLcLmLk	600	209	Hybrid
Gandy Digital www.gandydigital.com	Pred8tor	UV	CMYKLcLm+W+V	720 x 900	96	Hybrid
	SI8te	UV	CMYKLcLm; CMYK+W+V	1200	102.4	Hybrid
	SI8te	UV	CMYKLcLm; CMYK+W+V	1200	126	Hybrid
GCC www.gccworld.com	StellarJET K100UV	UV	CMYK (Optional Lc, Lm, W, V)	720 x 720	100.39	Hybrid
Gongzheng Tech www.gongzheng.com	GZEK2112AK	Solvent	CMYK	360 x 720	125.9	R2R
	GZEN3204AN	Solvent	CMYK	360 x 600	125.9	R2R
	GZR3208AU	Solvent	CMYK	360 x 800	125.9	R2R
	GZT3208AK	Solvent	CMYK	360 x 600	125.9	R2R
	GZT3204AU	Solvent	CMYK	600 x 800	125.9	R2R
Hewlett-Packard www.hp.com	HP Latex 280	Latex	CMYKLcLm	1200 x 1200	104	R2R
	HP Latex 850	Latex	CMYKLcLm	1200 x 1200	126	R2R
	HP Latex 3000	Latex	CMYKLcLm	1200 x 1200	126	R2R
	HP Scitex FB700	UV	CMYKLcLm (Optional White)	1200 x 600	98.4	Hybrid
	HP Scitex XP5500	UV	CMYK	360	199.2	R2R
Hollanders Printing Systems www.hollanders-ps.nl	Color Booster 250	Dye-Sub, disperse dyes	CMYK	N/A	98.4	R2R
	Color Booster XL	Dye-Sub, disperse dyes	CMYK	N/A	125.9	R2R
	Color Booster DS	Dye-Sub, disperse dyes	CMYK	N/A	125.9	R2R

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Infiniti Fina www.aeromatrix.com	330TX	Dye-Sub	CMYK (Optional 6-color)	600 x 1600	129	R2R
	Sky 330SW	Solvent	CMYK	1200	129	R2R
	320SW	Solvent	CMYK	360 x 1200	125	R2R
	330PQ	Solvent	CMYK	720 x 1200	129	R2R
	250PQ	Solvent	CMYK	720 x 1200	100	R2R
	250Q	Solvent	CMYK	720 x 1440	100	R2R
JHF Beijing Innovation Technology Co., LTD www.jhf.dpes.com.cn	JHF F40	UV	CMYK	720 x 1440	N/A	Hybrid
	JHF U1000	UV	CMYK x2	1020 x 1440	N/A	Hybrid
	JHF R6000	UV	CMYK or CMYK, Lc, Lm	1020 x 1440	196.8	R2R
	LEOPARD A500	UV	CMYK or CMYK, Lc, Lm	1020 x 1440	196.8	R2R
	JHF LEOPARD A32	UV	CMYK, CMYK+W, CMYKLcLm, CMYKLcLm+W	N/A	125.9	R2R
	JHF D32 UV	UV	CMYK, CMYK+W, CMYKLcLm+W	N/A	127.9	R2R
Matan Digital Printers www.matanprinters.com	Barak 8QW 5M	UV	CMYKLcLmYk+W	600	209	Hybrid
	Barak 8QW 3M	UV	CMYKLcLmYk+W	600	150	Hybrid
	Barak 8Q 5M	UV	CMYKLcLmYk+W	600	209	Hybrid
	Barak 8Q 3M	UV	CMYKLcLmYk+W	600	150	Hybrid
	Barak iQ 5M	UV	CMYK	600	209	Hybrid
	Barak iQ 3M	UV	CMYK	600	150	Hybrid
	Barak HS 5M	UV	CMYK	600	209	Hybrid
	Barak HS 3M	UV	CMYK	600	150	Hybrid
	4Q 5M	UV	CMYK	600	209	Hybrid
	4Q 3M	UV	CMYK	600	150	Hybrid
Meijet www.meijet.com	2500LX	Latex	CMYK or CMYKLcLmLkMk	1440 x 1440	100	Hybrid
	3200LX	Latex	CMYK or CMYKLcLmLkMk	1440 x 1440	128	Hybrid
	Jetex	Disperse Dye	CMYK	1440 x 1440	98	R2R
	2500EP	Dye-Sub, Eco Solvent	CMYK or CMYKLcLmLkMk	1440 x 1440	98	R2R
	3200EP	Dye-Sub, Eco Solvent	CMYK or CMYKLcLmLkMk	1440 x 1440	128	R2R
	3204PL	Solvent, Textile	CMYK	720 x 1600	126	R2R
Mimaki USA Inc www.mimakiusa.com	JV34-260	Dye-Sub, Solvent	CMYK	1440	103.6	R2R
	JV5-320S	Dye-Sub, Solvent	CMYK or CMYKLcLm	720 x 1440	129.9	R2R
	JV5-320DS	Dye-Sub	CMYK or CMYKLcLm	1440 x 1440	129.9	R2R
	SWJ-320 S2/S4	Solvent	CMYK	1200	128	R2R

*SGIA Members are listed in bold.

Comparison Chart Correction

We omitted five pieces of relevant equipment in the "UV Flatbed and Hybrid over 24" Comparison Chart" in the May/June issue of the SGIA Journal. Please find the corrected listing below.

Comparison Chart: UV Flatbed and Hybrid over 24"

Manufacturer	Model Name	Max. Print Width	Max. Print Length	Max. Media Thickness in inches	Roll Capable	# of Colors	Colors
Polytype America Corp. www.wifag-polytype.com	NQ32	50	128	2	Yes	8	CMYK,Lc,Lm,Ly, Lk+W option
	NKM21	48	96	4	Yes	7	CMYK,Lc,Lm+W, Varnish
Mutoh America www.mutoh.com	ValueJet 1617H	63.6	n/a	.59	Yes	5	CMYK+W
	ValueJet 1626UH	63.6	n/a	.59	Yes	5	CMYK+W+Varnish
swissQprint www.swissqprint.com	Nyala 2	126	n/a	2	Yes	7	CMYK,Lc,Lm+W, Primer/Varnish

Company/Web Site	Product	Ink Type	Inkset	Max. Resolution	Media Width	Config
Mutoh America www.mutoh.com	ValueJet 2638	Eco Solvent, Dye-Sub	CMYK/8,6,4 x 2, 4	1440 x 1440	104	R2R
	ValueJet 2628	Dye-Sub	8, 6, 4x2, 4	720	104	R2R
Novus Imaging Inc. www.novusimaging.com	Synergia H/UV	UV	CMYK (Optional White, Orange, Gray, Red, Blue, Lc, Lm, Ly, Lk)	N/A	126	Hybrid
Paradigm Imaging Group www.paradigmimaging.com	Titan 320L	Solvent or Eco-Solvent	4 or 6	720	126	R2R
	Titan 320	Solvent or Eco-Solvent	4 or 6	720	126	R2R
	Titan 320GS	Solvent or Eco-Solvent	4 or 6	720	126	R2R
	Triton S 250	Eco-Solvent	CMYK	1440	98	R2R
	SID Mercury 320	Solvent or Eco-Solvent	4 or 6	720	126	R2R
	SID Mercury GS 320	Solvent or Eco-Solvent	4 or 6	1440	126	R2R
	Xpress 320 8H	Solvent or Eco-Solvent	CMYK	720	126	R2R
Polytype America Corp. www.wifag-polytype.com	NKM21	UV	CMYK,Lc,Lm,+W,Varnish	1400	86	Flatbed with R2R option
PrinterEvolution, LLC www.printerevolution.com	Evo33 DS	Dye-Sub	CMYK or CMYK+OV	1200	126	R2R
	Evo33 eSUV	Solvent UV	CMYK or CMYKLcLm	1200	126	R2R
	Eos126 DS	Disperse Dye	CMYK	600	126	R2R
Reggiani Machine www.reggianimacchine.it/en/	ReNOIR	Reactive, Acid, Disperse	8 Process Colors	2400 x 2400	133.8	R2R
Roland DGA Corporation www.rolanddga.com	SOLJET Pro II V SJ-1045	Eco-Solvent	6 (CCMMYK or CMYKLcLm)	1440	104	R2R
Screen (USA) www.screenusa.com	Truepress Jet2500UV	UV	CMYK (Optional Lc, Lm, W)	1500	98.4	Hybrid
Seiko Instruments USA, Inc. www.seiko-i.com	ColorPainter H2P-104s	Low Solvent	CMYK	900	104	R2R
	ColorPainter H2-104s	Mild Solvent	8 (CMYK,Lc,Lm, Lt. Gray) or CMYK x 2	900	104	R2R
Splash of Color, Inc. www.splashofcolor.com	DFP 104	Dispersed Dye	6 (CCMMYK)	1440	102	R2R
	DFP-1320 G4-12	Dispersed Dye	8 (CCMMYYKK) or 12 (CCCMYYKKK)	1200 x 600	126	R2R
swissQprint www.swissqprint.com	Oryx	UV	4-8	N/A	98.4	Hybrid
	Impala	UV	4-9	N/A	98.4	Hybrid
	Nyala	UV	4-9	N/A	125.9	Hybrid
	Nyala 2					
Teckwin International LLC www.teckwin-usa.com	UV3200	UV	CMYKLcLm+W	800 x 800	130.3	R2R

	Maximum Resolution X x Y	Y Axis Mechanics	UV Cure Source	Number of Heads	Heads Manufacturer	Drop Size in pico liters (PI)	DEE report available on SGIA.org
	2400	n/a	Dual UV Lamps	32(min)-80(max)	Dimatix Q Class 10pl Print	10-30	n/a
	1400	n/a	UV Lamp	up to 16	Konica Minolta 1024	14	n/a
	1440	n/a	n/a	1	n/a	3.7 min	n/a
	1440	n/a	Head-Mounted Lamp	1	n/a	3.7 min	n/a
	2160	n/a	UV Lamps	4-18	Konica Minolta 1024	9-14	n/a