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Curious about Solvent Ink, Eco-Solvent, Mild-Solvent Wide Format Inkjet Printers at SGIA 2005?



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Caption for front cover: Print from the Gandinnovations solvent ink printer.

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Solvent Printers: Manufactured in US, Europe, Japan

ColorSpan Gandinnovations Mimaki Mutoh NUR Oce Roland Scitex Vision Splash of Color (listed for New Orleans but did not show up in Phoenix) Vutek

Oce has practically given up trying to design and produce its own solvent ink printers. At SGIA Oce had a booth, and still showed the Seiko, but will lose that distribution to HP by Spring 2006.



Cancellations

Gerber, Matan, and Teckwin were in the original list on the SGIA website for New Orleans, but not present at the trade show in December. Both Gerber and Matan re-brand Teckwin printers from China. The fact all three sellers of Teckwin printers were absent is unexpected.

SGIA 2005 conflicted with an annual sign trade show in Atlantic City, that was the week before. So some of the companies that exhibited there may have decided to cancel SGIA. Next year (2006), SGIA conflicts with Photokina in Germany; SGIA is exactly in the middle of Photokina. ISA conflicts with IPEX in England. No wonder trade show attendance drops, and no wonder manufacturers pull out.

In General: Chinese printer companies are backing off dramatically.

At SGIA 2003, there were Chinese printers everywhere. By SGIA 2005 even former heavyweights such as Orasign and Yaselan are not listed in the pre-show list (nor is Redhill, the short-lived distributor of Yaselan). The "disappearance" of Redhill from trade shows is but one example of the rocky road for Chinese printers to establish a foothold in the US market. Even if a company still exists, if they don't have a strong presence at the leading trade shows (ISA and SGIA), they effectively don't exist as far as most buyers are concerned.

And where are

- Liyu (Lyric)
- JHF
- Skyjet?
- Wit-Color?

Curiously Yishan tends to sell primarily through distributors in Turkey; we cover their printers in our FLAAR Reports on trade shows in Italy and Germany. The exception may be Yishan printers rebranded as Poli-Jet, shown at Graphics of the Americas (a trade show only in Miami and selling primarily to print shops in Latin America).

Infiniti (Fei Yeung Union, abbreviated FY Union or just FY) tends to be represented by their US distributor, Aeromatrix. But at SGIA Aeromatrix was not present. Instead Graphtec (Western Graphtec) was selling a rebranded entry-level Infiniti printer.

Flora manufactures for DuPont and Raster Printers, so Flora on its own does not really need to exhibit in the US any more.

In the preliminary website list, Teckwin was stated to be present three times:

- Teckwin itself
- Teckwin printers via Matan
- Teckwin printer via Gerber

But

- Gerber did not show up.
- Matan did not show up.
- Teckwin did not show up either.

Those Chinese manufacturers who seriously intend to capture market share in the US appear to be concentrating on attending Graphics of the Americas (GoA) and/or ISA trade shows. The reason for being at GoA is because several US distributors of Chinese printers are already in Miami, so shipping & delivery costs for the GoA show are more realistic. Second, it is print shops in Latin America that are willing to blindly buy a printer if it is cheap enough. US sign shops do not tend to accept Chinese lack of Americanized tech support. Latin American visitors tend to go to Miami, Las Vegas, or Orlando for their trade shows. SGIA has been held in Minneapolis, and now Phoenix, not precisely the preferred travel destinations for Latin Americans.

Azero Creon seems to have disappeared last year: they had one printer (but effectively no booth) at SGIA 2004; then missed ISA 2005. Their CEO attends the shows, but there is no longer a booth. This leaves only Dilli and Keundo in the pre-show list.. SPRIN is now showing wide format printers. Previously I have seen only desktop SPRIN printers. The Korean patent company is Kwangko. S.I.M. is no longer the US distributor for Dilli/D.G.I. and D.G.I. did not exhibit their solvent ink printers at SGIA. If Keundo was in the list for New Orleans, they were not in the list for Phoenix.

Taiwan is not very active in printer manufacturing. Eastech is exhibiting primarily in Germany (FESPA, VisCom Düsseldorf), but I did not see an Eastech printer in Visual Communications Milan sign trade show 2005. Eastech has been absent from American trade shows for about a year. But at SGIA 2005 an Eastech UV printer showed by painted a novel color and branded as Fuzion. Eastech has not been showing their solvent printers even in Germany; Eastech has been featuring primarily their UV printers.

Red Hill seems to have disappeared off the radar screens, at least at trade shows. Red Hill tried to resell Chinese printers from Yaselan. As Raster Printers, DuPont and others have found out, you can't simply take any Chinese printer and rebrand it. You have to redesign the printer from the ground up; then test in alpha sites a year; then junk all those printers and redesign again; then set up beta sites. Then improve all the software and key parts; this third generation printer is the one that will succeed in the American market. And on the basis of that experience you have a usable printer that is simply contract-manufactured in China. It is not really a "Chinese printer."

I had expected more Chinese solvent ink printers to appear at the show itself. But there was not one single Chinese manufacturer with their own booth: and only two Korean manufacturers: Dilli (UV) and SPRIN/ Kwangko (solvent).

Solvent Printers

Mimaki

Mimaki was the only printer manufacturer to avoid the get-rich-quick scheme of pseudo-solvent eco-ink fiasco of 2002-2004. Mimaki USA deserves honorable mention for not foisting eco-solvent inks on print shop owners in those years. Now that the newer 3rd-generation of mild-solvent inks are available, Mimaki offers these as better alternatives.

Overall, Mimaki has the most modest advertising, and thus each year wins our approval for corporate honesty, as you would expect for a Japanese company (and an honorable American distributor as well). Mimaki managers at trade show booths and at their corporate headquarters have provided honest answers to our questions about the performance, both pros and cons of their printers.

The Mimaki JV3 set world sales records from 2002 through early 2004. Then the Seiko Color-Painter began to take off. FLAAR Reviews praised the Seiko color gamut and speed. Even HP bought Seiko!



To respond, Mimaki first has doubled their speed, since Epson piezo printheads are inherently slow. So now the JV3 is half as slow (or twice as fast, depending on what point of view you have). You can use dual CMYK to make it a tad speedier too.

If you need a cutter there is no absolute necessity to have a cutter inside your printer. You can be more efficient if your printer just prints and your cutter just cuts. This way you can have a great printer and a great cutter. Otherwise you have a half and half hybrid.

Mimaki is still doing a good job designing and producing solvent ink printers. Seiko and Chinese clones have taken away a lot of business, but Mimaki has a good reputation. Plus Mimaki continually improves their printers. For example, their stretch model JV3-250SPF now has an automatic media feeder with more printheads for speeding up productivity.

At SGIA 2005 Mimaki exhibited their JV3 in at least two sizes. Several other booths exhibited Mimaki JV3 solvent ink printers also, such as the after-market ink company, Sericol.

Solvent Printers: China

DuPont retrofits Flora solvent ink printers with improved hardware and DuPont software. This is a rare instance where a Chinese printer is not merely rebranded. Indeed DuPont spends one to two years re-engineering the innards and using DuPont chemistry in the inks too.

Eastsign (DingTec). They were on the list for New Orleans, but not for Phoenix.

Flora, they were on the list for New Orleans, but not for Phoenix.

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Gerber (rebrands Teckwin), they were on the list for New Orleans, but not for Phoenix.

Infiniti / Aeromatrix, they were on the list for New Orleans, but not for Phoenix.

Matan (rebrands Teckwin), they were on the list for New Orleans, but not for Phoenix.

Teckwin (Shanghai Teckwin Development Company), they were on the list for New Orleans, but not for Phoenix.

So essentially all the Chinese printer manufacturers cancelled.

Solvent Printers: Korea

Brain Union System was present with a busy booth.

Kwangko showed their Sprin-branded solvent ink printers.

Solvent Printers: Taiwan

Since Eastech no longer exhibits at trade shows in the US, I am not familiar with any other Taiwan companies that will be at SGIA. However sometimes it is hard to know what is the actual origin of each exhibiting company. Graphics One is rebranding a printer from Eastech, but it is UV, not solvent.

Solvent Printer Accessories

Blackbody, BBC Industries BBC Industries offers good after-market heaters/ dryers for solvent and eco-solvent printers.

Online Dryer

I have their brochure but am not sure I took a



Brain Union System



Kwangko-Sprin

photograph of their booth. This is an add-on dryer for the Roland printers. The need for this reminds you that Roland printers were not designed or engineered to handle solvent inks. If they were, you would not have to continue to retrofit the printer by jerry-rigging an extra heater.

The product itself looks very clever. Their website is <u>www.onlinedryer.com</u>.

PAT

CaptivAir purifiers were shown prominently in the Oce booth. At ISA 2005 CaptiveAir purifiers were featured at the Mutoh booth.

Eco-Solvent Printers

Agfa

At SGIA 2004 the Agfa wide format printer booth consisted primarily of one giant poster of a woman in a bikini. Not even a very alluring photo or model. It was a shame they had nothing else to use to attract people besides such an image. The Agfa-Europe booth at FESPA in Germany was more professional, and actually exhibited some interesting printers. But then Agfa was totally absent at VisCom Düsseldorf and VisCom Milan. So the message being sent to the market is mixed.

Gerber

If Gerber is still offering their Elan XL, this is the Mutoh Falcon II Outdoor. In Europe Gerber is offering what appears to be a Mutoh Spitfire. But Gerber pulled out and did not exhibit at all.

Roland

As the demand for water-based printers continues to collapse, Roland offers primarily ecosolvent models (and smaller thermal transfer



units). Since the original eco-solvent inks were inadequate, and were inappropriately advertised with unrealistic claims, evaluations reported these facts. Now, by late 2005, there is a third generation ink. Of course it is no longer ecological, and is dramatically stronger than the first generation, but once we can find site-visit locations to undertake case studies, we will consider lifting a buyer advisory if the new inks work as advertised. We expect that they will.

The Roland booth was staffed by friendly people and this brand has an avid following. The booth was smaller than in previous years and dwarfed by Roland Europe as seen at VisCom Milan 2005, where Roland had the largest exhibit in the trade show. At SGIA Gandinnovations had the largest booth, larger than HP and Scitex Vision and Indigo combined. Mutoh and Mimaki had booths of comparable size and shape near each other and near ColorSpan.

Whereas Mutoh and Mimaki don't have an aggressive substrate sales program, Roland works hard to hold on to selling substrates to their customers. The first way Roland does this is to provide ICC color profiles only for their own media. Then they arrange the RIP so it works only with Roland profiles. But all the other companies do the same, so this is not limited to Roland. It is just that most end-users are not aware of why printer companies work so hard to get you to take their "free" RIP software. The primary purpose of this RIP software is to lock you into the manufacturer's own media.

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But canned profiles are not adequate anyway, so you are better off learning how to do your own custom profiles anyway. And when you do your own profiles, then you can use more economical media. The money you save in materials can help you pay for the spectrophotometer and ICC profiling software.

"No ventilation needed" is not necessarily true. Just because you can't smell the chemicals does not mean you don't need to ventilate.

"No lamination necessary," is not really true either. This claim is misleading. Of course you need lamination to provide abrasion resistance, scratch resistance, and protection against certain solvent cleaners. And what about floor graphics or vehicle graphics? Even full-solvent ink requires lamination.

Mild Solvent Printers

Seiko is the company that cleverly decided not to enter the eco-solvent debacle. So Seiko did not tarnish their reputation. To some degree Mimaki also avoided the first three years of eco-solvent problems. As a result Mimaki had record sales worldwide. Then came Seiko; they had record sales as well.

It is worth pointing out that both the Mimaki JV3 and the Seiko ColorPainter, got high marks in all FLAAR Reports, both on quality, and especially on honesty in advertising. So yes, it is a good idea to be honest about what your inks can do, and especially what your inks are incapable of doing (such as sticking on most materials, holding up to cleaning or holding up to abrasion).

And Seiko got the grand prize, partnership with the international giant, HP.

The Mutoh LT Board Printer can print on board, but that is about the only rigid material that can work with any flavor of solvent ink.

Vutek is selling a Mutoh Osprey printer. This was the Mutoh X-Jet that Mutoh showed fleetingly at ISA 2005 trade show. The Vutek UltraVu 260 was shown at SGIA in the Nazdar booth. You can see the original Mutoh Osprey printer in the Mutoh Europe booth at European trade shows.

Flatbeds that are not UV

Graphtec normally exhibits under the name Western Graphtec, but here they exhibited under the name of just "Graphtec." Graphtec has shed its HP printer-cutter; Graphtec stopped selling its rebranded Canon printers (no market for dye-based inks that fade in weeks). So they sort of eliminated themselves from the world of inkjet printers.

At ISA 2005 they showed an unfinished prototype of an eco-solvent flatbed. At FESPA 2005 they showed the same printer, still not finished. During those months their website had no info on this printer whatsoever. The question also remains: is there really a market for any eco-solvent printer anyway, much less a flatbed eco-solvent? Even full-solvent flatbed printers have not done so well. Since all the buzz nowadays is about UV flatbeds, a solvent ink or eco-solvent flatbed is a hard sell.

At SGIA Graphtec admitted that they had dropped the eco-solvent flatbed printer. Hard to say whether it simply did not function as desired, or whether they realized that everyone wanted UV-cured and not eco-solvent flatbed printers. The reason is because a UV printer can print on dozens of substrates. An eco-solvent flatbed can print, if lucky, on just one or two substrates (because most materials don't take eco-solvent ink well, or if they take the ink, the ink does not adhere, or if it adheres, it scratches off too easily.

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Mimaki manufactures several flatbed printers that do not use UV ink, but they do not show all models at every trade show. The Mimaki garment printer uses water-based inks, not solvent ink. But the GP-604S is a solvent ink version of the Mimaki water-based garment printer. The GP-604S has a nice brochure but it does not list applications or materials.

Tampoprint finally showed a flatbed inkjet printer in the US. But at FESPA 05 in Germany they showed only a flatbed solvent; not a UV. Here at SGIA the showed their DMD flatbed printer.

Desktop Sized Flatbed Printers using Solvent Inks

Several desktop-sized mild-solvent printers were exhibited. Usually there is no way to tell, when you are looking at the booth, which are water-based and which are solvent based.

Brain Union System has desktop-sized printers using a variety of inks. This company has exhibited at both SGIA and ISA in the last two years at least.

FreeJet 290 uses a mild-solvent ink to print directly onto many surfaces up to 13 x 19 inches and up to 4.75 inches thick. The original equipment manufacturer is not readily identifiable. This printer was displayed in the booth of OmniPrint.

Sprin USA markets a small desk-top sized flatbed printer.

Inkjet Substrates: Solvent

3M Commercial Graphics Division 3P Inkjet Textiles Avery-Dennison Fischer Textiles Glen Raven (did not exhibit in Phoenix). Lintec of America MACtac (pulled out; did not exhibit) Oracal (pulled out; did not exhibit)



The nicest exhibit and most innovative products were by Lintec of America. Lintec of America had an attractive exhibit. I would list their materials more for interior decoration and architecture but could also be used for signage.

3P won a Product of the Year award.

Signage Materials

Alcan Composites (pulled out; did not exhibit).

Bainbridge (pulled out; did not exhibit).

Hartman Plastics (pulled out; did not exhibit).

After-market Solvent Inks

Coates is part of the industry giant, SunJet.

Triangle exhibited; they are found all over the world.

Lyson did not exhibit. Instead a former Lyson manager had his own booth; a new and different company. But where does their ink come from? China, Korea? England?



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