



Solvent Ink Printers Exhibited at VisCom Milan, November 2005

Eco-Solvent, Lite-Solvent, Mild-Solvent,
Full-Solvent



General Comments	1
Solvent Printers	3
Unreconizable Chinese Solvent Ink Printers	3
Airbrush Printers	4
Solvent Printers in More Detail	5
ATP Color	5
JHF	5
Other Roland Clones	6
Mimaki	6
Conclusions	6

Licensing Information

If you wish to distribute this report to other people within your company, please obtain a site licensing agreement for multiple copies from FLAAR by contacting Sheila Irving, sirving@bgsu.edu. Substantial discounts are available for licensing to distribute within your company. The advantage of a license is that you can opt for automatic updates. You may have noticed that FLAAR reports tend to be updated as additional information becomes available.

In some instances a license would be available to distribute outside your company, including in other languages.

To distribute this report without license violates federal copyright law. To avoid such violations for you, and your company, you can easily obtain additional copies from www.wide-format-printers.net.

General Comments

Mutoh Europe had a nice corporate booth, and several distributors and resellers showed Mutoh printers. One of the solvent printers in the Spandex (Gerber) booth was rebranded from the Mutoh Spitfire or other comparable Mutoh printer.



Roland dominated the show, both in the size and splendor of its own booth and in the presence of Roland printers in a dozen other booths.



Mimaki had a huge booth, but somehow lacked the pizzazz of Roland's presence. There were a few other Mimaki printers in several other booths.

Spandex had a substantial booth since this was the first roll-out of their new version "II" of their Solara UV-cured inkjet printer. Previously the Solara was only roll-to-roll. The new model has an add-on table and accepts materials up to 1.3 cm thick.

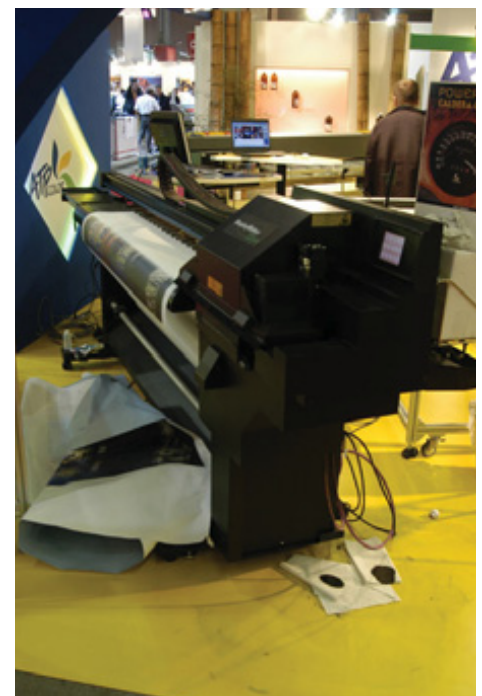


Seiko has no corporate booth but was present in several booths, including at least two companies that make after-market inks for the ColorPainter 64. I would assume that the large Triangle ink booth was also showing a Seiko after-market ink. So this makes at least three companies aggressively offering after-market inks for Seiko printers. This shows how successful the Seiko printer has been, since after-market ink companies go after only the market leaders. Of course the question is whether these inks are okay. We at FLAAR prefer the original inks that come with a printer.

Neolt had a large booth, more for the many brands of other printers that it distributes in Italy. Naturally Neolt also showed its UV-cured ink printers too.



Agfa was conspicuous both by its total absence as a corporate booth and its even more non-presence by distributors. I saw only one lone Agfa GrandSherpa 65 Universal AM printer. If there were more, they were not displayed dramatically enough to notice.



ColorSpan printers were shown modestly in the ATP booth (reseller) and in the Oce booth (distributor).

Solvent printers

- Agfa, only a single lone printer, at reseller
- ColorSpan, in the booth of atp color
- Flora
- Gandinnovations
- Gerber (their OEM of the Mutoh Spitfire)
- JHF Vista
- Matan (Teckwin)
- Mimaki at manufacturer's booth and resellers
- Mutoh at manufacturer's booth and resellers
- Roland
- Roland, after-market retro-fitted
- Scitex Vision, TurboJet
- Seiko at Oce¹ and several resellers
- Teckwin
- Yishan, in the resellers via Digirex (the distributor in Turkey)

Unrecognizable Chinese Solvent Ink Printers

At the trade show there were many Chinese solvent ink printers that had unexpected names. As the company hosting the booth you see only the name of the Italian distributor (who is probably getting it from a Turkish source who in turn has bought the printer from China). There was not time to make a list of every one of these Chinese printers. Usually there were so many Italian students in the booths that trying to take photos of each printer was not feasible.

Mitsuma is a name I am not familiar with from any other trade show. A printer labeled the Mitsuma Ultra was in the same booth that was showing the Flora 1800 UV flatbed printer. The catalog of Digidelta pictured the following solvent ink printers:

- Mitsuma HQ-230
- Mitsuma X12-330
- SPJ-XL (with no Mitsuma prefix)

Turkish trade magazines also show photos of Chinese solvent ink printers that do not include the name of the original Chinese manufacturer.

The Billboarder, Powered by Eurotech, was shown by the NAC Digital Group, www.nacdigital.com. The closest printer I could easily find was an Orasign PosterJet, exhibited at Graphics of the Americas. The Orasign printers had low quality output. However since each photo is from a different angle, I am not at all sure that the Billboarder is from Orasign: there are another dozen or more potential Chinese manufacturers.



¹ Oce will continue to sell Seiko printers until HP takes over in 2006.

The Jetto series of solvent ink printers is effectively invisible on the Internet. It is another printer shown by NAC Digital Group.

The PrintStar series of printers is from Digirex (Pimms Group) which suggests it is manufactured by Yishan. A reseller is www.prodigital-tr.com. This is why it is a challenge to find out that it is actually manufactured by Yishan (unless Digirex has other manufacturers besides Yishan).

The Eurotech X5, Eurotech Eagle do not appear anywhere on an Internet search other than to learn that ColorGate makes their RIP software. The page in the trade magazine has a logo, "Made in Turkey." Try www.nacdigital.com.

Airbrush Printers

Ten years ago, Vutek and other printers for billboards used airbrush technology to spray ink onto surfaces at low resolutions. 25 dpi was probably considered high resolution in those days. Naturally no one would accept that resolution today. Even Xaar and Spectra heads are adding a grayscale form of variable droplet and picoliter sizes as small as 8. Nonetheless, one airbrush technology has survived, sold by LAC of Japan.

At the Mumbai sign printer trade show that I attended in India five years ago, the prints from the LAC printer there were the worst output in the show (Mumbai is the new name for what used to be called Bombay). A print shop in Guatemala bought a LAC printer and sent us a series of complaints. Thus you can see how we are skeptical of this brand.

But other printers that won the "Worst in Show" award in 2000 and 2001 (Fuji's attempt to produce a printer; the XES (Xerox) oil-based printer by Olympus; the first-generation Seiko oil-based printer), most of these improved (except for the Fuji printer; it was put out of its misery by 2002). The XES ColorgrafX was so improved we awarded it the "most improved new generation." Same with the Seiko, the final generation of the Seiko oil-based printer produced passable output.

So most technologies do improve, but airbrush, as a technology, is simply low resolution. Thus for viewing on a billboard, or truckside advertising, it's okay, because people don't expect to view these up close. But a refrigerator door, or a glass window, that needs better resolution.

The one situation where the low resolution would be okay were the tiles used to decorate the bottom of a pool. With three meters of water on top, no one will care if the resolution on the floor of the pool is dotty or sandy; indeed a sandy grainy appearance would be appropriate for the bottom of a pool of water.

But for murals (tile murals) on the wall, you would be much better off using dye sublimation or even direct printing with a UV-curable ink technology.

However since it is necessary to list all the pros as well as all the cons, in order to be fair to each product, a positive feature of this system is that an airbrush can jet a kind of ink that can be fired in a kiln. So the decorated ceramic tiles can be fired in an oven at between 850 and 1200 degrees C. That's pretty hot. I believe that there is at least one inkjet printer, the KERAjet, made by Ferro; designed and manufactured in the area of Italy where decorating tiles is a main industry. So there are higher quality alternatives.

And that is just the point. The exhibit of the Michelangelo NV looks impressive when you see it from a distance. But when you see the results up close, when you realize all the hand labor to set things up, and when UV-flat-bed printer technology can also print on thick and rigid materials, there are alternatives.

Just realize that airbrush dates back to 10 or more years ago. Also realize that this is not a "printer" but an airbrush that goes back and forth on a vertical frame (a printer tends to be horizontal). So you have to mount the

material, and then move, and align, the airbrush frame to the material. On a real printer the alignment is precise within microns. If you are wheeling the spraying frame around your shop, your alignment from one corner to another will probably be off to a millimeter or so.

Solvent Printers in more Detail

ATP Color

ATP Color sells a unique form of Roland printer, though with a different sheet metal than the ribbed-style of Roland models of 2005. Four models are offered:

ATP RF 64, a flatbed, but with only a stubby flat platen: no actual table.

ATP F 74, dye sublimation, with a calendering machine directly below the printer.

ATP T 74, for lycra, jersey, voile fabrics.

ATP M 54, flatbed, up to 4 cm thick.

You could spend a lifetime trying to figure out which is which. And it would cost a fortune to test and evaluate each machine. No wonder there are no test results or really any factual information on what it is like to actually have one of these printers.



JHF

JHF printers were sold by Sprint Solution, Naples.



Other Roland Clones

Many of the other after-market Roland printer modifications looked like ones I had seen at Viscom Duesseldorf and FESPA trade shows earlier in Germany. But since the resellers in Italy were a different name, I can't immediately know which printers come from which retro-fitting company. You would have to compare their photos brochure to brochure (and this implies having all the brochures from each past trade show all neatly organized). But it appears that the "SolventJet" printers were from a German company, Technoplot GmbH, www.technoplot.com.

Retro-fitted printers are not always ideal. The new features look like they were tacked on; after all, the original chassis was designed for some other ink or some other purpose.

The other question is how is solvent ink supposed to dry (and adhere) to marble, aluminum, and other such surfaces. At least if a material is on a roll it will pass over the heating unit; but if flat it comes out above, and past, the heated platen.

Then there is the issue of the manner of attaching the take-up flatbed table, projecting out with no legs or any support whatsoever. What if someone sits on the table, or puts a heavy material on it? Once the table sags even a millimeter, it would affect skewing, and print quality. So the combination of the lactate solvent ink (sounds like Lyson ink) and the retro-fitted nature makes me skeptical of the SolventJet FlatBed printer. Of course I could be wrong; the printer could be fabulous. But I would definitely want to find somewhere that had this printer in-house, and learn how it holds up. Since this retro-fitted flatbed is not, to my knowledge, sold in America, it is not realistic to check it out.

Mimaki

Mimaki did have a few surprises, such as their JV3-250SPF. This is a refinement on earlier "baby grand" model, the JV3-250SP.

Conclusions

Attending the Visual Communications Milan 2005 trade show was worth the time. For example, I witnessed how the Italian wide format printer market is very different than that in the US: more Chinese printers and more Roland printers.

Next time I would prefer to attend all three days, and try to get in early enough to escape the crowds of students. I could not get close to the machines to take notes on their model number with so many people in the way.

I thank Materia Griega, a trade magazine publisher, for providing hotel and meals.

Acquire these reports at:


www.wide-format-printers.net

Eco-Solvent Publications


Falcon II Outdoor Eco-Solvent Ink Printer




FLAAR Reports
Mutoh Junior and Mutoh Rockhopper 38




Roland SolJet Eco-Solvent Printer
Site-Visit Case Study #1



Roland SolJet Pro II
Site-Visit Case Study #2



Evaluation of Roland SolJet Pro II SC 540
Site-Visit Case Study #3



Solvent Ink Publications


Solvent Ink Printers for Outdoor longevity on Vinyl without Lamination



FLAAR Reports
Nicholas Hellmuth's Guide to Buying, Using & Maintaining a Solvent-Ink Printer




FLAAR Reports
Gandinnovations Jeti 3300
Site-Visit Case Study



Bus Wrap and Fleet Graphics



Printing Wallpaper with Inkjet Printers




Evaluation of Mutoh Toucan Solvent Ink Printer




FLAAR Reports
Mimaki JV3
Evaluation of Solvent Ink Printer




FLAAR Reports
ColorSpan DisplayMaker 72s
With comments on the Gator, 72SI



FLAAR Reports
Nicholas Hellmuth Evaluates the Seiko ColorPainter 64S




Solvent Ink Printers from China & Taiwan




FLAAR Reports
Mutoh Toucan
Are you considering this Solvent Printer?
Site-Visit Case Study




FLAAR Reports
Mimaki JV3
Site-Visit Case Study



FLAAR Reports
ColorSpan 725 and ColorSpan 72SR (Hybrid Flatbed)
Site-Visit Case Study



FLAAR Reports
Seiko ColorPainter 64s
Site-Visit Case Study



Solvent Ink Printers from Korea

