



UV-Cured Flatbed Printers at SGIA 2005

Annotated List & General Comments on UV-Inkjet Printers





Caption for cover: Print from Raster Printers UV printer.

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Abstract

The purpose of this report on SGIA 2005 trade show is to list all the UV printers that were present, and to offer comments on some UV printers that were not present (and ask why; since not being at a trade show sometimes means a printer is not quite finished).

Our trade show report is also a guide to indicate which printers are comprehensively covered in separate FLAAR Reports; each of those reports is entirely dedicated to the pros and cons of a specific UV-curable inkjet flatbed printer. The printer-by-printer FLAAR Reports can be ordered from www.wide-format-printers.NET.

Generally the FLAAR Reports on wide format printer trade shows have more photographs than you can get elsewhere. So if you were not able to make the show, you can see plenty of what was there.

And if you did go to SGIA, you probably did not have a camera. Plus, you will get comments in a FLAAR Report that you probably did not yourself have access to at the show itself, such as that there will be a new entry-level UV printer in 2006.

We have a varied audience of readers and thus we work to provide information that is usable to a diverse range of interests:

- People who seek assistance in learning about printers so they can decide which brand to buy
- People in the industry who know their own area well but who ask us to provide information on other aspects so that they can keep up.

News from SGIA 2005

Gandinnovations will have a dedicated roll-fed printer probably by the time of ISA 2006 trade show.

The new dedicated roll-to-roll Durst Rho 350R was not present at SGIA 2005 but the beta-version was working just fine when we saw it at VisCom 2005 in Milan (November).

The fact that both Durst and Gandy have dedicated roll-to-roll printers in preparation documents that NUR did have a good idea to bring out their Expedia roll-to-roll as early as DRUPA 2004.

These new roll-to-roll printers are also documentation that if you have a really large print shop you will probably want one UV printer dedicated to flatbed production of rigid materials and a separate UV printer set aside for roll-to-roll. A true flatbed will handle rigid material better than a hybrid. A true roll-to-roll mechanism may handle roll-fed material better than a flatbed as well. Yes, hybrids are okay, but some print shops are so large that they might consider one of each size and shape.

An entry-level UV printer will be announced by or before summer 2006. We have heard about this printer from many sources, indeed the company itself has notified many buyers, hoping they will wait for this new model. But if you really need an entry-level printer, just remember that no such printer has met its delivery date.

- The Gerber Solara slipped its delivery date and then took almost a year to reach maturity.
- The Raster Printers machine is now finished and ready, but this took 16 months since it was first announced to the public at SGIA 2004 in Minneapolis.
- The Oce Arizona 60UV had a gestation period of over a year and then was cancelled.

The ColorSpan 72uvr and 72uvx are the only entry-level UV printers that functioned from the day they were presented. The Zund 215 went through various stages, since it was released a bit prematurely (we know since we did a site-visit case study of a company that bought an early version; they sold it and bought a Durst Rho; last week they added a ColorSpan 72uvx).

So if you wait until the mystery entry level printer is “announced” then you have to wait until it actually works.

During these 12-18 months, your competitors are among the over 470 sign shops, franchises, photo labs that have bought a ColorSpan UV-printer, and are making a profit too.

You can't produce any income, and no profit, waiting for a manufacturer to even announce their printer. If a printer is not publicly announced, there is a good reason. If the printer is not shown at a trade show, did you consider asking why? Maybe the printer is not finished enough to show to buyers?

Notable UV Printers

The Dilli Neo UV printer was among the most impressive UV-flatbed printers at SGIA 2005. What is Dilli and why is the printer so notable? That's why we have a comprehensive FLAAR Report on the Dilli line of UV-curable ink printers. We have been inspecting Dilli UV-cured inkjet printers for two years.

At most trade shows many of the UV printers tend not to print the entire time. In many cases it is because the printers have broken down (yes, even with all the tech support staff at hand, many printers simply can't print for three days in a row without breaking down). The Gandinnovations Jetti UV probably set a record for continuous printing. Obviously we do not have inspectors standing next to every printer at every show, but the Gandy booth was so open and visible that it was easy to see the printer at work every time I passed by. Besides, Gandy had one of the best positions on the floor.

The Dilli was also doing a good job printing, as were the two difference sizes of ColorSpan UV printers.

Absent: UV Printers that did not appear

Gerber pulled out; so their Solara 2UV was not available for us to study. But we saw it already at Visual Communications Milan, in November 2005.

Roland is still not showing their UV flatbed printer to the public. Part of the delay may be trying to use Epson printheads. The chemistry of some UV inks and some solvent inks are not good for Epson printheads.

Roland's flatbed prototypes so far have been rather narrow, whereas the market is clearly asking for wide format. ColorSpan has even expanded from 72 inches to 98 inches.

Durst was present, but their beta-version Rho 350R was not on exhibit.

Also absent was anything really new in UV-cured ink machines. No new brand names; not really any new models, though the Daytona is still relatively new. The Fuzion is a rebranded printer that has been shown under its other brand name for almost two years. So no new UV printer and firm admission from only two manufacturers that they have a new UV model that will be introduced in 2006.

Scitex Vision is due for a new UV-cured inkjet printer, so you can be sure they are working on one. But nothing officially has been announced. We use common sense analysis to predict which company will produce a new UV model. For example: NUR comes out with a roll-to-roll UV. Durst comes out with their Rho 350R. Gandy talks about his roll-to-roll unofficially. Thus, logically, you can expect that Vutek will need to catch up and produce a roll-to-roll system also.

Note we are speaking of dedicated roll-to-roll. A dedicated roll-to-roll is different than a hybrid. A hybrid has to allow flatbed and roll-to-roll interchangeably. So something has to compromise. That is why Gandy has a dedicated flatbed and soon will have a dedicated roll-to-roll.

Aellora Digital

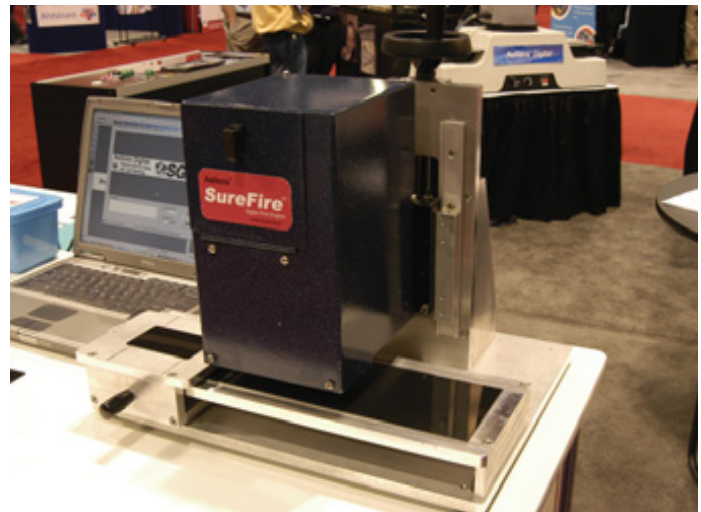
Lots of action in the Aellora booth. Aellora was among the first UV systems to work well with white ink. Most people think of Durst as first, though Azero Creon (HyperNics) was actually among the earliest. Since HyperNics does not exist any more (their website is off the air) and as Azero has not had a trade show appearance in over 18 months, their "first" did not get well entrenched in the history books. In the meantime, Aellora has become best at white UV printing on rigid black substrates. In distinction, Mimaki has specialized in white UV printing on transparent substrates, both rigid and roll-to-roll.

There was so much going on within the Aellora booth it was hard to focus on any one aspect. They had several outstanding white prints on black materials: their now legendary photos of expensive cars.

- Aellora systems can print personalized names or messages on something as small as a ballpoint pen.
- Aellora systems can print on plastic bottles, either flat-surfaced bottles or other shapes.
- Aellora systems can print on round glass bottles, so you can make personalized wine bottles. Great for customizing holiday gifts.

The printer can handle materials up to 6-inches thick.

It would be interesting to see how the Aellora printing technology in white on black would work with photos taken from a dedicated B&W digital camera. Although anyone can make a grayscale image from a color photograph, there is at least one medium format digital back that is dedicated to taking B&W images without going through a colored Bayer pattern of RGB color filters.



ColorSpan

MacDermid ColorSpan now offers three models of UV-cured inkjet printers

- The original 72uvr
- The new 72uvx (thickness up to half an inch).
- The new 98uvx (thickness at a width of eight feet).

FLAAR offers two reports on the 72uvr and one new site-visit case study report in the works on the 72uvx. A FLAAR Fast Facts is being prepared on the 98uvx.



Two sign shops near our university have ColorSpan UV-cured ink flatbed printers. We will have site-visit case studies on them both by January 2006.

The ColorSpan printers are fully finished; these are not experimental printers. You are not a beta-tester, wondering what will break down next.

ColorSpan offers regional support through well-known local dealers plus manufacturers support from corporate headquarters. All end-users that we have interviewed give high marks to ColorSpan tech support, both response and results.

Prototype stage is very early. The PIT printer from Bulgaria was shown at DRUPA in prototype stage. The Raster Printers was in prototype stage a year ago at SGIA 2004. The Durst Rho 160 was shown in prototype stage at DRUPA 2000 and Photokina 2000 too. Prototype stage means the printer can't yet print! The Durst Rho 160 went on to become the first really high quality production UV-flatbed.

Alpha-stage is when the printer can print a few signs at a trade show if an entire tech support crew is on hand to coax it along. Raster Printers had advanced to alpha-stage at ISA 2005. The Agfa :Anapurna/ Mutoh Condor was half-way between prototype stage and alpha stage at FESPA 2005 (June). Most printer companies don't show their printers as prototypes or as alpha-stage.

Beta-stage is when a printer can print most of the time at a trade show but still requires company tech personnel on hand to make sure it can run all day all week. The Zund 250 probably had advanced to this stage by early 2005 (but then had a relapse).

Shipping status means the manufacturer is willing to risk their reputation that the printers will work in a customer location without having a tech support person on duty the entire time. Sometimes a printer manufacturer will clearly announce the specific date for going prime time: DuPont announced that a print show in Canada recently and for the US market at SGIA that their 22uv would be formally released. At this stage you can still expect firmware upgrades.

The headache here is when a company takes advantages of end-users as beta-testers without telling them. Microsoft software is infamous in this respect. This is why FLAAR Reports include comments on whether a printer is in prototype stage, beta stage, or alpha stage.

ColorSpan will also market the Zund XY cutter (no, not a Zund printer, but the cutter that almost all UV-printer manufacturers are using, from Zund).

Dilli

I finally learned the difference between Dilli and D.G.I. (and S.I.M. too). Dilli has a new US distributor; S.I.M. is no longer the distributor. We give all the information in the update to the dedicated FLAAR Report.

The NeoPlus printer, shown at SGIA, produced remarkable output. I would give the NeoPlus a high rating for color gamut.

The NeoPlus is a mature-looking printer. There are no readily available time-lines on when an Asian model was in prototype stage, when it was in alpha-stage, when in beta stage, and when in finished shipping status.



DuPont Color Communication

After a year in alpha-stage, another year in beta testing, DuPont has developed an impressive UV-printing system. Note the word system. The DuPont UV printer is linked to the whole DuPont color management world.

The DuPont Cromaprint 22UV is contract-manufactured by Shenzhen Runtianzhi Image Technology Co in China, but DuPont has long ago re-designed and re-specked all the crucial functional parts. So this is not the same as a rebranded Chinese printer. The DuPont Cromaprint 22UV is no longer the same as the original Flora 2200 or 2214UV. Indeed you could consider the current version of the model 22UV as simply a DuPont designed printer that happens to be manufactured in China. This is very different from the Flora UV printer that was shown to the world at DRUPA 2004 and earlier at Graphics of the Americas in January 2004. It is immaterial who designed the print engine for this early year 2004 printer, it was Chinese in every aspect. But in the long process of improving the printer, these Chinese parts have been replaced.

To learn all the crucial features and capabilities of this printer, and how it was transformed into the DuPont Color Communications family of technology, get your hands on the FLAAR Reports. To gain knowledge of how the DuPont Cromaprint 22uv differs from Vutek, Durst, and Inca printers, order a copy of the FLAAR Reports. These reports are updated periodically, so be sure you have the latest edition.

Durst Image Technology US LLC (Durst USA)

Durst showed their Rho 600. They also had brochures on their Rhopac and the new Rho 350R for dedicated roll-to-roll printing. The Rho 350R is competition primarily for the NUR Expedio.

Durst does not make solvent ink printers, so their UV printers are not "just a solvent ink printer with a UV-lamp attached."

Durst does make the Lambda color imager. So Durst has experience in high quality images. A Lambda is not a 25 dpi air-brush billboard printer. In other words, Durst comes from the world of image quality, not from the world of low-dpi billboards.

Durst also announced a new printer for ceramic tiles; this is not a UV printer so we cover it in the general report on SGIA; the present summary is just on UV-cured ink printers.

Fujifilm see Sericol USA Inc

Pedigree is important, as much in a UV printer as in a champion race horse. The advantage of having a university producing independent reports is that a university is dedicated to studying the progress and history of a technology.

When you go to a trade show, or pick up a brochure, or even when you visit the demo room, you get the official version. But we are not the manufacturer, we are not selling Brand A, B, or C either. A university is a source of public education.

Although our original intent was to provide education for end-users, it turns out that the FLAAR Reports are avidly read by industry too: printer manufacturers, RIP manufacturers, media companies, distributors, resellers, and the entire range of industry specialists. Many of these people also desire to know the progress of a printer from prototype through alpha-stage into beta stage out into a final version for the real world.

Since we look at all this from a totally outside perspective, our comments will understandably not be the same as you receive from a manufacturer.



DuPont Cromaprint 22UV

Most of us at FLAAR are photographers or have a background in photography. National Geographic has published my photos, so I have experience in image quality. We use Creo Scitex scanners and have an 80-megapixel Cruse digital camera for digitizing paintings for giclee. Hence it is fair to say that FLAAR has experience with image quality.

Now you see why we like some printers more than others.



Durst



end of 2005. So I can only assume the ad is referencing the “printing platform” which may be called the print engine elsewhere, or what I would informally call the chassis. In other words, the print engine in this printer is comparable to the print engine in other printers (none of which use UV inks). We discuss all this in the FLAAR Reports on the Fuzion and identify the manufacturer and distributor. Note the word distributor, since the manufacturer and distributor are not always the same, and parts of a printer may be manufactured one place and then assembled in another country.

Gandinovations

One person (outside the company) explained why Gandinnovations printers tend to be better designed and better constructed: namely that James Gandy wants any printer that carries his name to be the absolute best. Just look at the detail on the machines. No jerry rigged parts; no crude cutting or sloppy welding. And they don't use cheap parts just to increase their profit.

The Gandy brothers, James and Hary, had the largest booth of any at the trade show. Their booth was larger than that of HP and Scitex Vision put together.

GO Fuzion UV

Graphics One is a hard-working company oriented in part to the Latin American market. Graphics One was test-marketing the Mutoh Toucan LT for well over a year before Mutoh USA itself showed this printer in their own Mutoh booth at trade shows.

Since Mutoh USA does not have its own UV-cured inkjet flatbed printer, and since even when the Mutoh Condor is available, it may more likely be sold by Agfa, it is not surprising that large Mutoh resellers, such as Graphics One, become innovative and look for their own UV printers to sell.

When I first saw the Fuzion UV I came up upon it from the back. When I saw the bright purple color I thought at first it was a Grapo Octopus. But when I saw the front control panel; this told me the manufacturer and the distributor. Keep in mind, I did not have my reference library on UV printers with me in my briefcase. I had only my mental familiarity of five years studying UV printers across Europe and the USA.

Relative to this, there is an unexpected sentence in the brochure: “Using a printing platform that has over 4,500 units on the market...” There is no UV printer that has sold 4,500 units. Indeed there is only one UV printer in the world that has sold even 10% of that; namely the ColorSpan 72uv, which has sold about 450 units by the

We have been taking notes on the ancestors of the GO FUZION UV for several years. All this is in the FLAAR Reports, which is being updated to combine our comments on the Fuzion UV version.

Inca (see Fujifilm **Sericol**)

Leggett & Platt Digital Technologies

L&P presented one model of their huge Virtu printer. L&P is a 5-billion dollar Fortune 500 corporation. So this printer is not made in China. Nor was it designed in China. Although it is logical to use the assistance of outside consultants and integrators, essentially the Virtu printers are created, engineered, and manufactured in-house.



It is also useful to point out that L&P does not make solvent ink printers. So their Virtu is not just a solvent ink printer with a UV lamp tacked onto the carriage.

Naturally, with all these advantages, this printer carries an equally serious price tag.

Notable at SGIA was the new feature that allows the L&P Virtu to print sharper text, which, after all, is rather crucial. Splatter on the edges of text has been an issue with earlier UV-curable ink technologies.

Mimaki USA Inc

Several UV printer models were in the Mimaki booth. Mimaki UV printers are dedicated to specific tasks: they are not generic wide format UV printers.

Why is there more FLAAR Report coverage of some brands, and not the same for other brands?

We know more about Gandy printers because we have undertaken a site-visit case study of a Gandinnovations Jeti solvent printer in Guatemala and a Jeti UV printer in Minneapolis. We then spent five days in the Gandinnovations booth at VisCom Düsseldorf, so got to see the printers being unpacked and set up. We have had the chance to meet most of the Gandy technicians, so we know about their tech support.

Once we visit the Gandy demo center(s) in Toronto and elsewhere, we will have even more information in the future. So again, now you see why we can say more about the Gandy Jeti printers: we know the printer family and we know the Gandy family.

When we have more access to a printer, and can spend more time with this printer, we can write more about it. Gradually we hope to visit the demo centers and manufacturing plants of additional brands. We would like to have the same level of coverage of other key brands as we now have for Gandy; and we are planning to increase our coverage of the Jeti, such as on their dye sub printer, their backlit photo system (for aligning front and back prints by means of an on-board camera system).

Another factor in our coverage is which printers do people ask about most. People ask a lot about Durst printers. We tend to produce reports when our readers consistently ask us.

Since it is expensive to dedicate the time to do a site-visit case study, and then the cost for our staff to edit and produce the publication in PDF format, if there is no corporate sponsorship for our university projects, then we have to wait until we find the printer within easy driving distance of our university. If corporate funding is available, then we can fly to wherever is necessary to do the site-visit.

Another major factor is access: if a company provides access to documentation and information, then we can produce reports more efficiently. If a company does not answer questions and if we can't acquire the User Manuals, then it takes us longer to get the information. So we will tend to write more when we have easier access. ColorSpan provides their User Manuals on the Internet; you don't even have to register or do any silly paperwork. So we like to expand our coverage of ColorSpan printers because all the homework is readily available. Professors love to read User Manuals, Site Preparation Manuals, and other things. NUR has really good manuals too, as does Océ (unfortunately, Océ does not have any UV printers now, since their model 60 was never finished; their model 200 UV has been cancelled; their successor models are not out yet).

Manuals for Chinese and Korean printers either don't exist or vary from incomplete to incomprehensible due to either literal translation or just outright poor translation, usually from a document that was not all that good to begin with.

Since there are 50 models of UV printers to cover, from 30 manufacturers, we have tended to cover the printers that are the easiest for us to gain access to. So although we have a report on an early model L&P Virtu, including even with knowledge from a site-visit case study, we would like to have additional familiarity with the entire range of Virtu printers in order to increase our coverage of their entire range.



NUR Expedio



NUR Tempo

Mutoh America

The Agfa :Anapurna and its identical twin, the Mutoh Condor, have not appeared at any trade show, not anywhere in the world, since a quick peek at FESPA 2005, where the printer was in a closed room. We got in and have issued an entire FLAAR Report on them. But not a peep from anyone since.

NUR America Inc

The Tempo and Expedio were at work in the NUR booth. The Expedio was printing just fine. The Tempo flatbed was set on roll-to-roll for some reason, and was not doing much flatbed jobs

For the NUR Tempo we are updating our second year of research with notes taken at an installation. This is our first site-visit case study note for the Tempo.

For the Expedio, we will have initial reports by early 2006. In roll-to-roll category, at present the only printer we cover is the Durst 350R.

Oce North America

Oce has cancelled their nice model Arizona T220 UV. Oce showed only their 220 solvent ink printer and a rebranded Seiko. So Oce had no UV printer at this trade show. In Europe Oce is rebranding the ColorSpan UV printers.

Raster Printers Inc

Raster Printers had a large booth; looked as large as the booth of Mutoh and Mimaki. Indeed the Raster Printers booth was larger than that of Roland, and in a more prominent location.

The RP-720 and the Daytona models were both on display. FLAAR has one single report that covers both models because the two models are essentially identical except for the printheads and number of inks: dual CMYK for the Daytona with a larger drop size; six colors and a smaller (finer) drop size for the RP-720.

It is fair to say that many people were curious to see how the Raster Printers had advanced. The RP-720 and the Daytona models were printing most of the time when we passed by the booth, indeed I would not be surprised if they were printing more than some of the quarter-million dollar printers elsewhere at the same trade show.

The FLAAR Report on the RP-720 and Daytona is the only independent report that exists. We are also the only reviewers who spent an entire week inside the printer, so to speak, by spending five days in the demo room in Palo Alto, California. So we learned things you won't find out on a 1-day visit; and for sure our report will tell you things you won't learn at a trade show booth.

The FLAAR Reports also include comments on two install-sites (on two customers who bought early versions of the printer). Our comments include documentation on what customer service and tech support is really like.

You can obtain the FLAAR Reports from www.wide-format-printers.NET.

Scitex Vision America Inc

Scitex Vision rarely exhibits their VEEjet UV flatbed printer. Now that HP is pumping money into Scitex Vision, we would expect this will accelerate their work on a new-generation UV printer. In the meantime, Durst and Gandinno-ventions are the leaders in terms of innovation, with NUR in this league too.

Sericol USA Inc

Sericol makes the ink for Inca printers (made in England). Sericol also makes the ink for the Zünd 250, but that printer had a few problems and is being fixed before being re-introduced later in 2006. So there was no Zünd 250 at SGIA.

Usually Sericol shows their Columbia Turbo and one Spyder. Since SGIA was downsized, Sericol exhibited only the Spyder 320. Sericol also sells after-market inks for solvent printers, so the Sericol booth had a Mimaki JV3-160 SP using Sericol inks.

Sericol and Inca, like Durst, focus on image quality. Indeed the Inca printers, along with those of Mimaki, are the only UV-curable inkjet printers that print only uni-directionally. The best quality is from uni-directional mode.

From these comments, now you are learning why we like some printers and are not as impressed with others. FLAAR is a university-based institute dedicated to top quality digital photography, scanning, and digital reproduction of these images. Some UV-cured printers just don't meet our expectations. Inca Spyder 150 is among our favorite, precisely because it is oriented to photo-realistic quality, at least as close as UV-cured ink can come today.

The correct corporate name is Fujifilm Sericol USA Inc, but they are known simply as "Sericol."

Entry-level UV-printers are a class of their own. Most entry-level UV printers are not just low price printers. Entry level means the printer is primarily manually operated and manually controlled. Yes, of course even an entry-level printer does many actions on its own: it has capable software and is run by a computer. But the operator has to do most of the set-up, especially for rigid materials. The reason you need to realize what you are getting yourself in for, has to do with productivity. Productivity figures, for any brand, are not meaningful whatsoever for flat and rigid material for onesies-twosies. Most of your time will be spent aligning each board, setting the printhead gap manually, and so on.

If you are producing 100 copies of the same rigid sheet, then your productivity will increase somewhat. But check to see whether you can simply put the next sheet on the flatbed table and see whether the machine itself will guide it in, or whether you have to align and guide the sheet with your hands every time by pushing the sheet up to a stop-block.



Raster Printers



Sericol

UV-cured ink is relatively new chemistry, and having an ink that does well at everything is a challenge. So it is useful to learn what a particular ink does well, and realize its downsides too. The best way you can do this is to ask an end-user who already has the specific brand of printer that you are thinking of buying. This is why we have site-visit case studies, now available on two models of UV-cured inkjet flatbed printers: ColorSpan and Gandinnovations.

At a trade show you hear all kinds of stories about "bad service," "no response to tech support calls until several days later," and "model XYZ printer has lots of breakdowns." Usually we take these with a grain of salt, because they are usually being repeated by competitors. This means we do not include mention of these in our reports.

Until we learn more specifics and from reliable sources. Then we take notice. At least one ink that has a problem on Lexan is something we have taken notice of. You won't read about this in the printer sales brochure: there they tell you the ink works great on everything.

For your own sake, be sure to check with other users of the brand that you are interested in. Find these ON YOUR OWN; don't naively ask the manufacturer to suggest someone to visit.

Inks do improve, and after-market inks are available. Indeed after-market UV inks were openly exhibited at SGIA. A printer manufacturer can hardly complain about your using an after-market ink if their own ink starts to have pinhole problems and then other defects after a few months.

Ink recipes change, and what is an issue now can be overcome with a new ink. Again, all the more reason to have contact with a friendly colleague who already has the printer so you can learn how things improve.

Remember the Prodigal Son from the Bible? We believe that printers should have a second chance to. Printers that break down and require you to maintain spare parts; and inks that don't stick: when these problems are overcome, the same printer can be considered reliable and worthy again.

Thieme Corporation

It would not be expected to bring a million-dollar printer that is huge to a down-sized trade show. But Thieme did have a booth where you could get a brochure on the M-Press.

VUTEK Inc

Vutek showed both their main models the 200 and PressVu UV 320. The booth was well designed, as you would expect for EFI and Vutek.

We understand that there are issues on adhesion and longevity questions, especially for printing on Lexan.

Zünd America Inc

Zünd showed their UVjet 215 in a modest booth that featured primarily the Zünd cutters.

No Zünd UVjet 250 was shown: neither by Zünd nor by Sericol. Although this model was still shown on their website as recently as November 2005, the model 250 has been withdrawn since early Autumn. The model 250 is scheduled to be improved to overcome issues and then to be re-launched in 2006.

Additional Exhibits related to UV-Cured Inkjet Printers

Collins Ink

Collins Ink makes ink for Kodak Versamark and for other industrial inkjet needs. Collins Ink is now partnered with a Japanese ink company to introduce after-market UV inks into the US marketplace.

Since Collins Ink is in Ohio, and thus practically a neighbor (a few hours south of Bowling Green State University), it is not surprising that we are keeping up to date on Collins UV inks.

Phoseon Technology

While doing research for an article on UV-lamp curing of inkjet flatbed printers, I asked inkjet printer manufacturers about LED lamps for curing. Some had not really heard of

LED; most who had said that LED was not realistic for inkjet curing.

But, being Nicholas, and being a professor, and not accepting the party line, I put in my article that LED was an up-and-coming lamp technology that had a great future in UV printing in coming years.

Then I learned that, contrary to industry beliefs, LED lights were already being used in UV printers: the Inca Spyder 150 uses one set of LED lamps for pinning the ink and another LED array for deeper curing.

Then, at the November 2005 IMI conferences in Lisbon, several of the technology speakers commented on the bright future for LED lamps.

And now, at SGIA 2005, Phoseon Technology, an LED UV-lamp manufacturer, had an exhibit. As the booth attendants said with a wide grin on their faces, "all the UV manufacturers had dropped in to learn more about their LED lights."

My article on UV lamp curing is available from *Digital Graphics* magazine, their January issue (available before Christmas). *Digital Graphics* is published by National Business Media. If you happen to miss this article, another commentary on UV lamps is available in the FLAAR Reports, in the series on UV ink printers (available from www.wide-format-printers.NET).

Several manufacturers and distributors of substrates for UV-cured inks had exhibits at SGIA. We tend to concentrate on the machine hardware, since with over 50 models from more than 30 manufacturers, UV-curable inkjet printers keep our staff busy. Probably fortunately for us nowhere near all manufacturers exhibited; it was a challenge to interview all booth managers of UV printers as it was.

Summary on UV-cured Inkjet Printers at SGIA 2005

I had expected at least one totally new UV-cured inkjet printer.

I had anticipated more UV-cured inkjet printers from the mainstream, such as Gerber.

But Gerber, Teckwin and others pulled out and did not exhibit.

The near total absence of Chinese UV cured inkjet printers can allow US and European manufacturers to breathe a sigh of relief. The only exceptions were the DuPont Cromaprint 22uv and Raster Printers models, all manufactured by Flora in China, and the Fuzion UV, manufactured elsewhere in Asia. The DuPont printer was completely redesigned by DuPont and is contract-manufactured. The Raster Printers is half-Chinese and half-redesigned by Raster Printers in California. The Fuzion is rebadged straight from Asia.

Beta-Testing as a way to Finish a Printer's Development

Many print shops enjoy doing beta testing and work directly with a manufacturer. So DuPont handled the launch of their printer in an appropriate manner. The model 22UV was not officially launched until November 2005 (in Canada); the launch for the US was precisely at SGIA 2005. You knew precisely what the status of the printer was at all times. We were kept informed at every step as the printer improved stage after stage.

But with some other printers you are never really sure when they are out of beta stage. The problem is whether issues with hardware or software are discovered by beta testers, who have been told in advance they are getting a beta-version, or whether the deficiencies are discovered by end-users, who actually paid for the machine, and are naturally a bit distressed to find out that the printer is not really finished.

Realizing these factors is part of the learning process. And learning is what a university is dedicated to.



Collins Ink

Korea was represented only by Dilli. Hypernics is no more; Azero Creon faded from the scene already last year. Kwangko, so far, makes only solvent ink printers.

Taiwan is not much into the printer manufacturing market, other than Eastech. And even here, the actual locus of manufacturing is not necessarily Taiwan itself (due to high labor costs).

It is notable that India has not produced a single inkjet printer on its own that has attempted to be sold in Europe or the US.

In summary, for the end-user there was plenty to chose from, from entry-level through mid-range Zund and Dilli into the high end Durst, Gandinnovations, Inca, NUR along with other choices from additional manufacturers.

For the industry specialist, not much in hardware or software that was really new, but new technology is still very much in the air relative to UV and ink chemistry: LED curing lamps and cationic UV ink. What's this? Check out the FLAAR Reports on www.wide-format-printers.NET.

We have two reports on SGIA: the present one on UV-cured inkjet printers; and a separate report on everything else:

- Eco-solvent, mild-solvent, full solvent
- Direct to textile
- Dye sublimation
- And other booths that we noticed.

The next FLAAR Reports on trade shows will be our coverage of Graphics of the Americas '06. For 2006 we will be offering a subscription; the first time you can subscribe in advance. This subscription will be to all trade show reports that FLAAR attends and covers for year 2006. This feature will be added by late January or early February.

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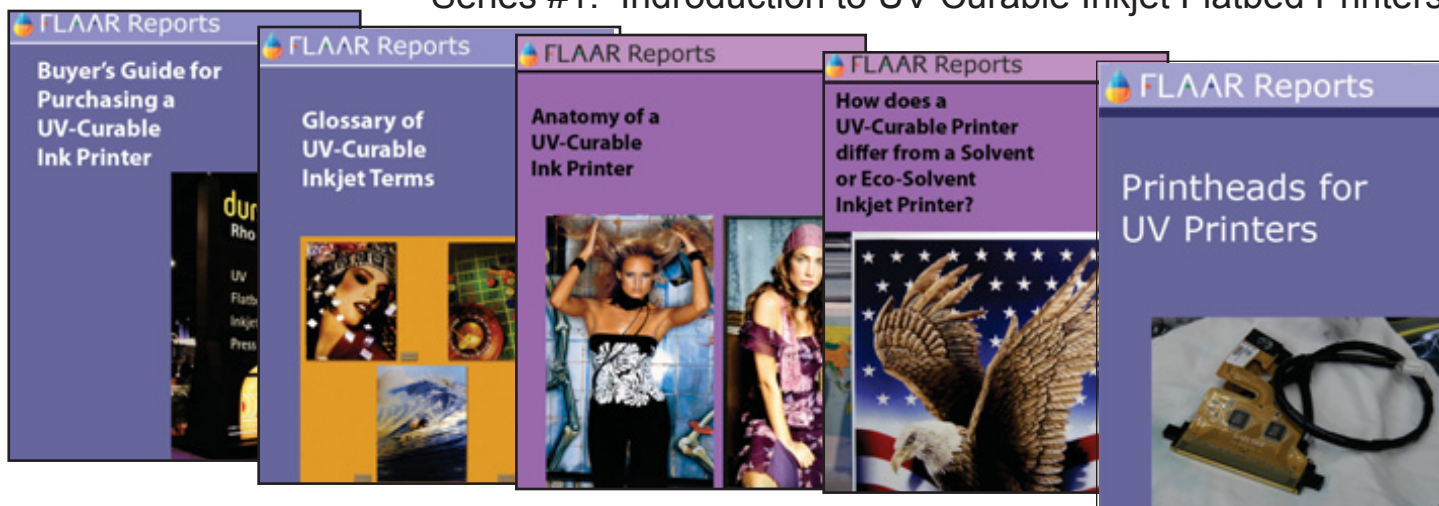
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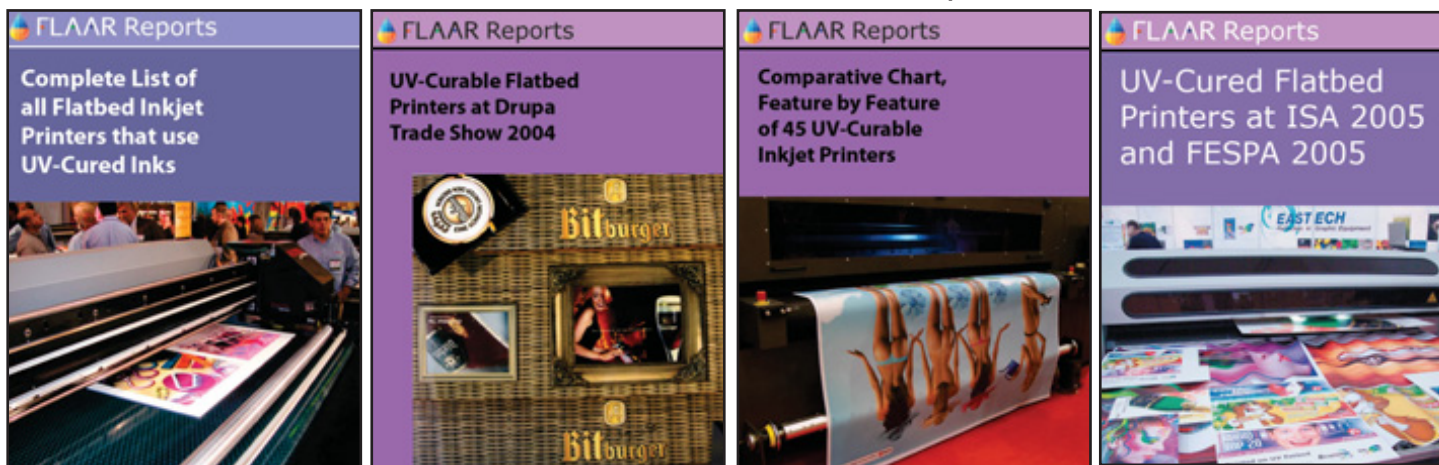
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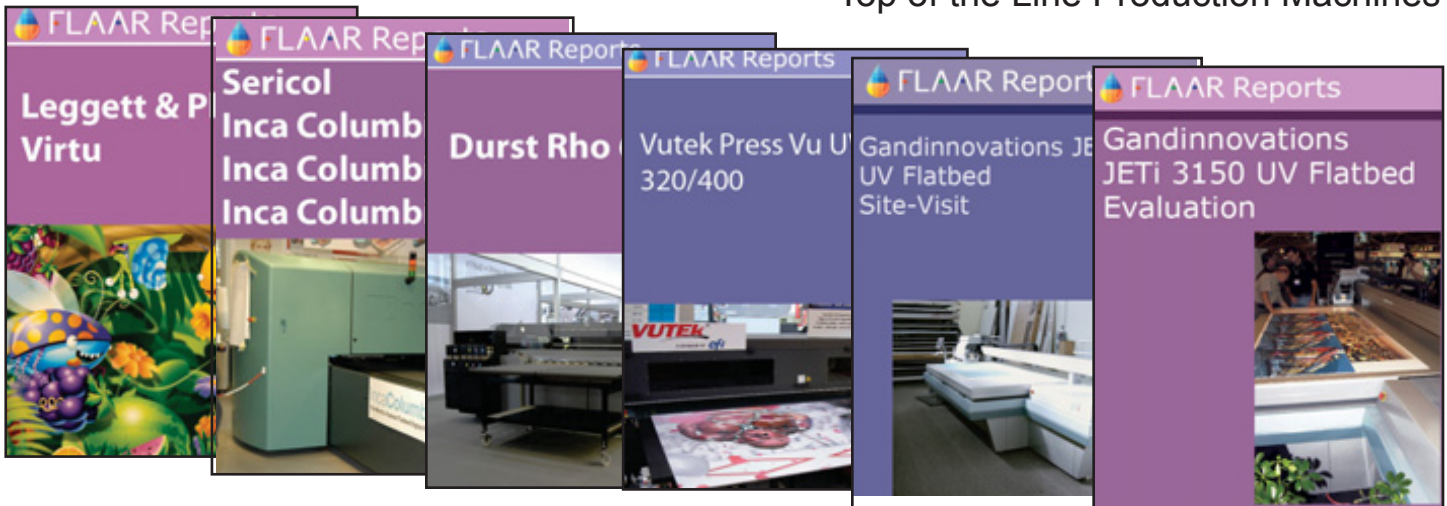


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