FLAAR Reports

November 2009

UV-Cured Inkjet Printers at SGIA 2009

FLAAR Awards for Excellence at SGIA

Nicholas Hellmuth

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Contents

FLAAR Reports

UV-Cured Inkjet Printers at SGIA 2009

UV PRINTERS

Most popular display: the printed chairs in the GRAPO booth. More than half the people that walked by this booth stopped to look at their printed chairs.

Best Display inside a booth: Dibond cut-outs in 3-d depth in Dibond booth.

With a huge wall of another booth in front of them, I did not even find the Dibond booth until the last day. And their own booth had another wall blocking it off on another side. But on two sides of their booth they had really great graphic design in 3D arrangement.

Best booth overall: for design: Fisher Textiles. At most trade shows the attractive booth design tends to be made of printed fabrics. Their booth designer did an excellent job.

Best booth for power image: their booth was a blunt display of raw capability. The Durst booth for UV printers showed that Durst stands for: built like a tank but with resolution and lack of banding that is crucial for POP. Too many other printer spec sheets claim POP quality but have mottle, splottle, or banding. I was disappointed at what I saw in some of the other booths, in their 5-meter UV printers.

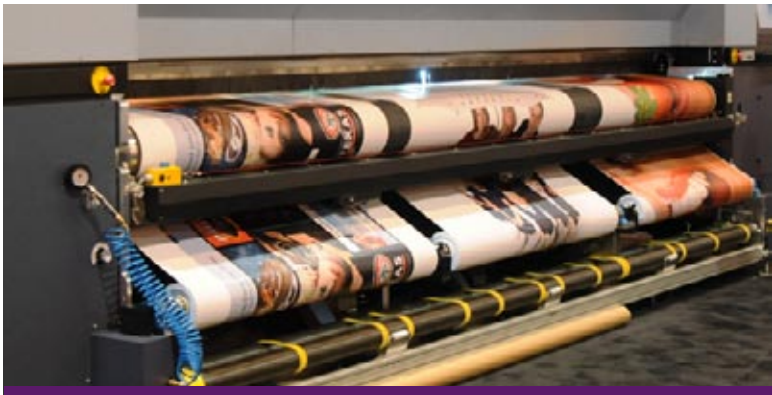
Plus the Rho 900 and the Durst Rho 1000 really crank out serious production. I would bet that load-and-print simultaneously will out-print (dollar for dollar) most other printers, since their print specs (for other flatbeds) do not time loading and unloading time (when print speed is zero). Plus I have been in the Durst factories five times: three times in Brixen and twice in Lienz: very very impressive.

Most impressive booth for cutter-router: I believe had the largest cutter-router booth at the show was of EskoArtwork. Their Kongsberg with i-cut vision system cut our Dibond (aluminum composite) very nicely. My inspection of their demo room at Lake Geneva, Wisconsin revealed to me their capability for the signage and display markets. I am especially interested in cutters for making innovative museum displays. So there will be several new FLAAR Reports on Kongsberg cutters this month.

Brightest textile prints on display: The StampaPrint of DigiFab, direct to cotton, offered significantly brighter colors than any other comparable textile printer at the show.

Look how striking GRAPO printed chair was.

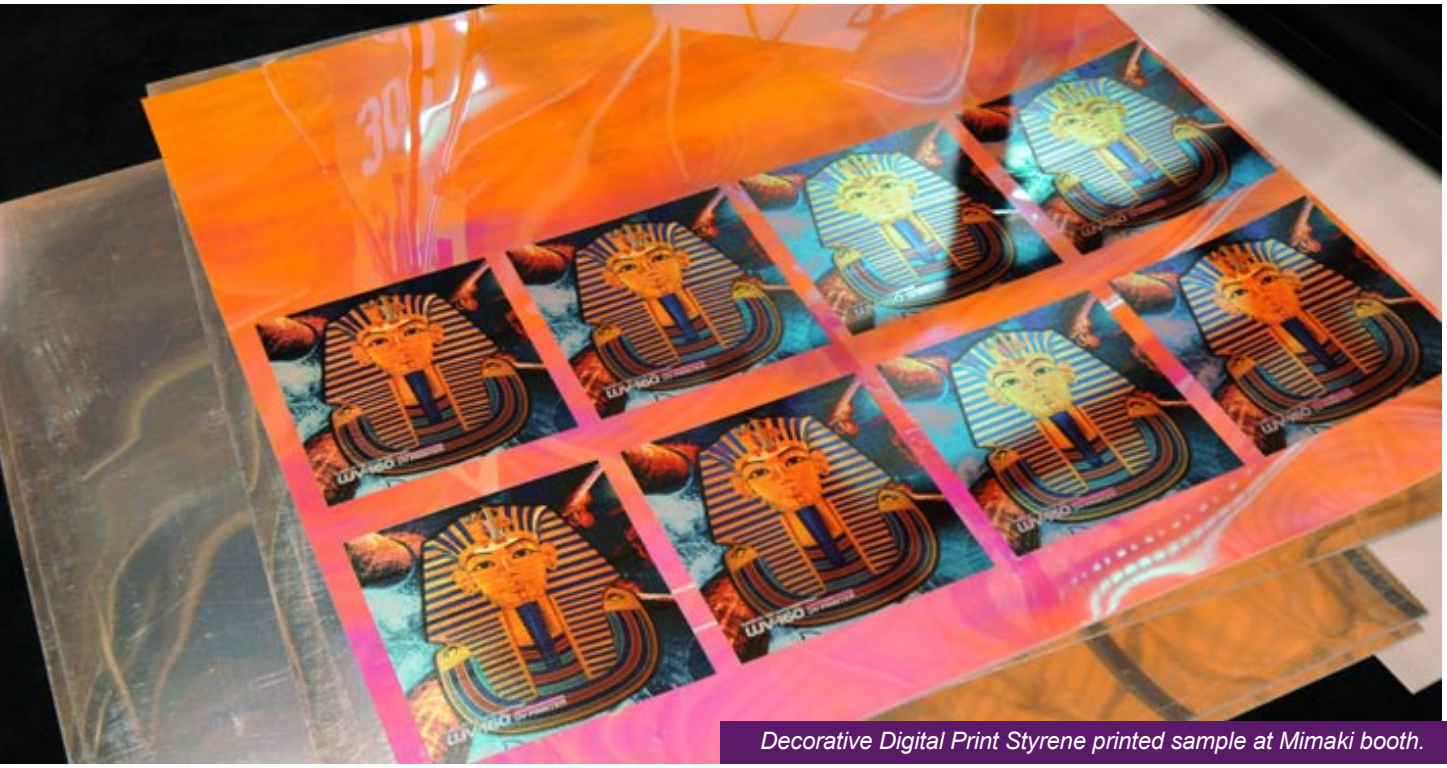
Fisher booth was the example of excellent design.



Sometimes just the quality of the product is enough to invite people to booths.

Most interesting material being printed on: Mimaki exhibited *"Decorative Digital Print Styrene"* at Print '09 and again at SGIA '09. This is a fabulous material, and well-deserved congratulations to Mimaki for having such innovative materials in their booth.

This material comes from Innnovative Laminators Company Inc. ILC.



Decorative Digital Print Styrene printed sample at Mimaki booth.

Honorable Mention for Display Innovation and unique Display Material: Vytec: CO2 laser etched or cut onto solid granite. The panels were also of significant size, that most other laser engravers can't handle.

Vytec samples at their booth.

Bright colors per se: Seiko ColorPainter has always done an excellent job with colors. I also liked how easy it was to add a mesh kit (a trough to catch ink so you could print mesh or unbacked fabrics).

Most impressive single UV printer: The JETRIX from InkTec: it really looks sophisticated.

Most inviting booth for after-market ink: It is not easy to understand which after-market ink is potentially reliable, and which after-market ink is a risk. I have noticed the booth of AT at major international trade shows around the world, and have checked discretely to learn of their status in the ink industry. I would rate their inks as having potential to stand in the top tier of reliable brands. They have a capable leadership from their home office and a capable representative for the European market who was also present at SGIA.

Seiko ColorPainter H-74s printing some excellent color samples at their booth.

Jetrix 2513FRQ flatbed UV printer.

AT booth showing some of their after market inks.

Comments on Awards

We do not mention the worst booth design, or the most boring booth. These companies should be left asleep.

We do not mention all the most abandoned booths (where no one was visiting). This was obviously enough to their own booth attendants.

But even some of the big-name booths were, at best (to be polite) were “ordinary.” Which is one step above boring. Yet far-out booths can be pretty awful too and can fall flat because they try too hard.

Fortunately there were no booths with stupid loudspeakers (a plague at FESPA this year and even worse at Chinese trade shows). Loudspeakers should be banned (seminars and talks inside a booth should not inflict their noise on their neighbors). There were few booths with excessive LEDs blinding everyone (a curse at Chinese trade shows and can be an issue even in some American and European events).

Only one booth used semi-naked women (which is not fair on their neighbors whatsoever). There were no hula dancers (an eyesore at FESPA and too loud also). If your product is so mediocre that you need hula girls to attract business, you should go into the tourism business and go to a travel agency trade show, not a printer trade show such as FESPA).

So in general it was a nice SGIA with 75% of the booths pretty standard, perhaps 5% really great, and 1% exceptional (Durst, Fischer textiles; and the GRAPO booth was an ample pleasant friendly space also).

List of UV-cured inkjet printers at SGIA 2009

Fujifilm

Acuity Advance (Oce Arizona 350 GT)

Agfa

Agfa :Anapurna Mw (moving transport belt, hence a combo)

Agfa :Anapurna M2 (moving transport belt, hence a combo)

Notice that all large Agfa :Anapurna printers are no longer exhibited at all. The Agra-made :Anapurna has not been shown since last year (all Agfa wide-format inkjet printers are made by Dilli, in Korea; only one :Anapurna model is not. The Agfa M Press and Agra :Dotrix are not made by Dilli).

Agfa :Anapurna Mw with some printed samples.

CET X-Press RS512 roll to roll UV printer.

CET (Chin. E Technologies)

CET X-Press F512 (RTZ Flora for US market; dedicated flatbed)

CET X-Press R512 (72" roll to roll; former DuPont, LexJet DEC hybrid)

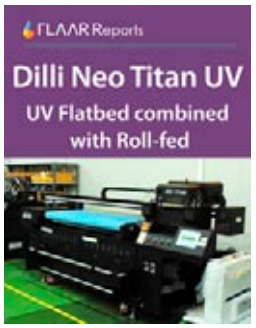
They have nicely turned their longer name into CET which is easier to handle.

Dilli

Dilli Neo Titan UV-1604D

Dilli Neo Titan UV-2506W

Dilli Neo Titan UV-1606W (all with moving transport belt, combo style)



Dilli Neo Titan UV-1604D combo UV printer.

Dilli Neo Titan UV-1606W combo UV printer.

Dilli Neo Titan UV-2506W combo UV printer.

Durst

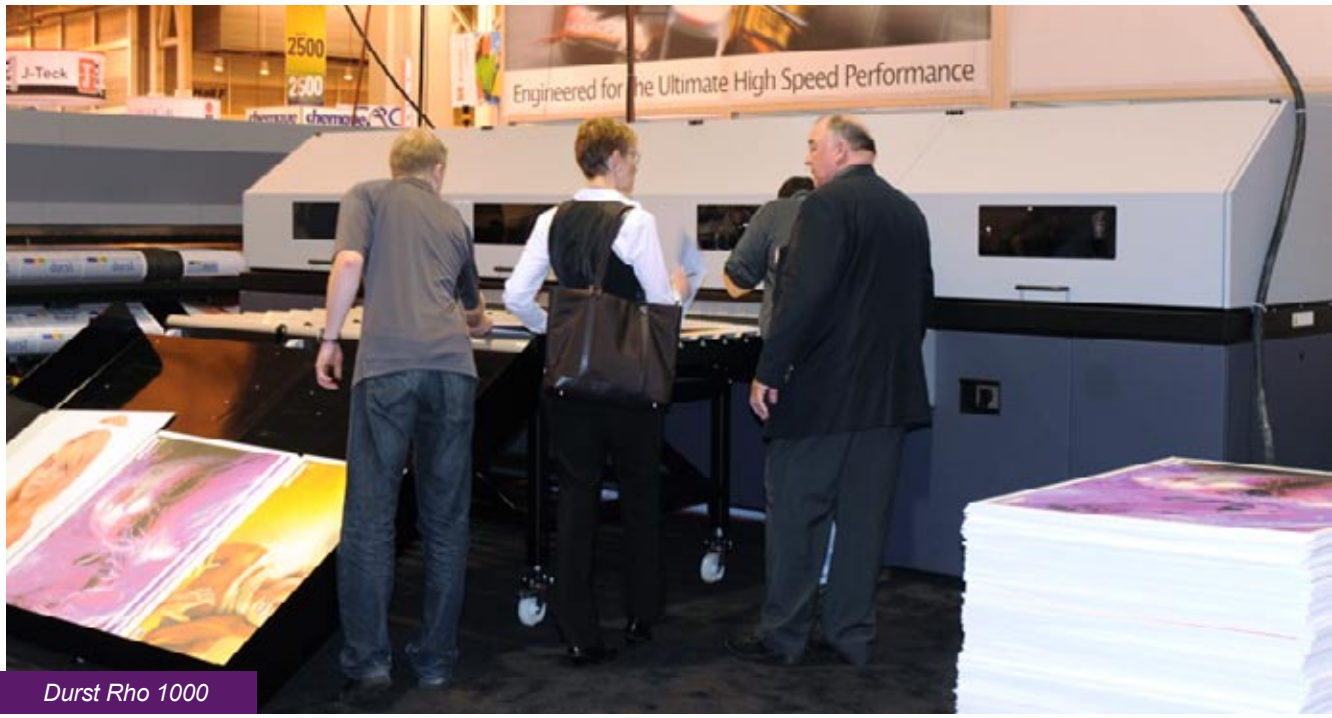
Durst Rho 500r (roll to roll)

Durst Rho 800HS (now Rho 900)

Durst Rho 1000 (fast)

Durst Rho 500r printing some samples.

Durst Rho 900 at Durst booth.



Durst Rho 1000

EFI Rastek

EFI Rastek T660 (flatbed)

EFI Rastek H650 (entry-level combo)

EFI Rastek H650 in booth of Grimco

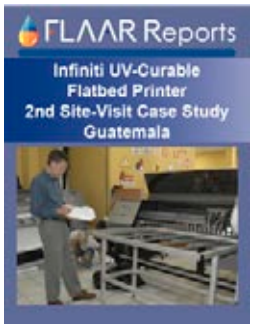
EFI Rastek H650 at Grimco booth.

Fina (Aeromatrix)

Fina UV1612S (hybrid, former Infiniti)

This hybrid UV printer is made in the impressive Honghua factory. This hybrid still has one-lamp only, since printing bi-directionally (which requires two lamps for curing) leaves too much bi-directional banding (the lawnmower effect).

I would assume the printers manufactured today are better than the two I inspected two years ago (one in St. Louis and one in Guatemala). Infiniti and Challenger solvent printers (in the same printshop as the UV model) were acceptable for their low price. In other words, the Honghua factory does produce acceptable products for solvent inks.



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Fina UV16125 hybrid printer at Infinity booth.

Gandinnovations

Gandinnovations Jeti 3150-48 (dedicated flatbed)

Gandinnovations Jeti 1224 (flatbed with roll pulled over entire flatbed)

It is hard to know what to say about the current situation of this company, so to be polite it is best not to say anything. Their booth at SGIA last year was huge; their booth this year was not as large. This downsizing is unfortunate since it helps to have capable competition to keep technology advancing.

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Gandinnovations Jeti 3150-48 dedicated flatbed.

Gandinnovations Jeti 1224 dedicated flatbed with roll-to-roll option.

Gerber

Gerber ion x

Gerber ion z

At front Gerber ion z and behind Gerber ion x both flatbed UV printers.

GRAPO

GRAPO Manta (dedicated flatbed)

GRAPO Manta printing some samples.

GRAPO Octopus (moving transport belt, hence a combo)

Because GRAPO is headquartered in Europe, any printer that they send to SGIA must be returned to Czech Republic. So it was unrealistic to ship a printer the size of the Shark. Nonetheless, be sure to take a look at the Shark if you are in VISCOM Italy or other major European trade shows. Or arrange a trip to the factory demo room, in one of the most beautiful cities of the Czech Republic (3 hour drive from Prague).

GRAPO octopus II printing some roll to roll samples.

Inca Digital

Inca Onset S20 (Fujifilm Sericol booth)

This printer looks nice but when you see the Durst Rho 800HS (now the Rho 900) and when you see the Durst Rho 1000, these European-made printers start to look very competitive re: any Inca printer.

HP

HP Scitex XP5100 (roll to roll for billboards)

HP Scitex FB950 (moving transport belt, hence a combo)

HP Scitex FB950, a unit in a distributor's booth, GSG.

HP Scitex TJ8500, roll to sheet, with Fotoba cutter.

HP Scitex FB7500 (dedicated flatbed production system)

No more HP Designjet 5440 hybrid UV are being offered

HP booth.

HP Scitex XP5100 (roll to roll for billboards)

HP Scitex FB950 at HP booth.

HP Scitex FB950 at GSC booth.

HP Scitex TJ8500, roll to sheet, with Fotoba cutter.

HP Scitex FB7500 (dedicated flatbed production system)

(InkTec) JETRIX

Jetrix 2513FRQ (dedicated flatbed with roll capability too)

Jetrix 2513FQR.

Lotte Innojet

Lotte Innojet 900uv in KIWO booth (specialized flatbed)

Lotte Innojet 900uv.

Matan

(Matan) UVISTAR UVR 3532 (Fujifilm Sericol booth)

(Matan) UVISTAR UVR 5032 (Fujifilm Sericol booth)

Mimaki

Mimaki JFX-1631 (flatbed, over the top roll-fed; LED lighting)

Mimaki UJV-160 (hybrid, LED curing; two were in the booth)

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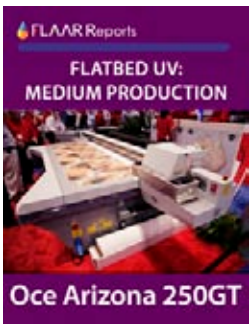
Mimaki JFX-1631 LED lighting.

Mimaki UJV-160 hybrid, LED curing at Mimaki booth.

Oce

Oce Arizona 350 GT



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Roland

Roland LEC-330 (small format roll to roll; LED curing)

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Roland Versa UV LEC-300

Teckwin

Teckwin TeckSmart (hybrid, pinch rollers)

Teckwin TecSmart at their booth printing some samples.

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Teckwin Teckstorm R (dedicated flatbed with adjacent roll-fed)

Teckwin TeckStorm

Teckwin TeckUV 3200SR, (roll to roll, new)

I was frankly surprised to see a hybrid (pinch rollers on grit rollers) since most hybrids of other brands have not been successful (ColorSpan 5440uv is the best example of a hybrid that did not work adequately for too many kinds of thick material). The only major companies that are attempting to push a hybrid still would be Mimaki (UJV-160).

The Mutoh Zephyr, also a hybrid, is rarely exhibited as its price puts it too high and having pinch rollers is too limiting. The market for roll-to-roll materials just evaporated this month with the launch of the 60" latex printer from HP. This removes the need for a roll-to-roll UV printer in many instances.
I do not say the latex ink is better, only that printshop owners that I met at SGIA all said they were switching to latex ink since the price of the printer was so low.

The TeckUV 3200SR is $107,999 at SGIA show price discount. But you can buy a 104" Seiko ColorPainter mild-solvent for substantially under that. And the ColorPainter ink is well known for its bright colors. UV ink tends to be a bit matte. The same comment would apply to any roll-to-roll UV printer.

The Teckwin brochures are professionally designed and nicely printed. The Teckwin web site is the best of the Chinese manufacturers. Plus, most of the people in the Teckwin booth speak English well (as do obviously their American staff).

Teckwin TeckUV 3200SR the new roll to roll Teckwin printer.

In charge of the nice Teckwin booth was Stella Hu (CEO) and Heather Rockow of their US office.

VUTEk

VUTEk GS3200

VUTEk GS5000r

VUTEk QS3220

VUTEK QS3200r

As Gandinnovations loses momentum clients that used to fill the Gandy booth are now in the VUTEk booth or the HP booth. So both those booths were busy. The presence of EFI Rastek inside the EFI VUTEk booth also brings in many people interested in entry-level UV-cured printers. The total absence of any entry-level HP UV printer also sends more business to VUTEk.

efi VUTEk GS3200r.

Comments

There were two printer booths which were empty much of the time: Epson was one; a UV manufacturer booth was the other. One of several reasons the Epson booth was sometimes empty is because giclee atelier owners tell me that they feel the GS6000 does not have a color gamut good enough for giclee or even décor so this nice printer did not get market share in this market. This is not my comment, this is the comment from the leading giclee atelier in Europe (and other end-users). So that limits the GS6000 to signage, not décor.

But some printshops are buying it now that the original absurd price has collapsed to a more reasonable figure. But the audience at SGIA is sign shop owners, and they are content with their Roland, Mimaki, Seiko, Mutoh or D.G.I. solvent printers. Nonetheless, the Epson GS6000 is selling to some clients. However I am not convinced of any claim "no ventilation needed."

Alternative Inks (alternatives to UV and alternatives to eco-solvent)

I am still skeptical of Bio-solvent ink. This was so interesting when it first appeared. It was touted in the VUTEk (InkWare) booth and in the Mutoh booth. I wrote several articles on it.

Then reality set it: acquired a reputation for rubbing off, especially with some solvents (alcohol or windex, can't remember which). Then the ink, and the printers that used it, disappeared for several months: were not at any trade show.

What had happened evidently is that the ink was truly not finished and did evidently rub off too often, or suffer abrasion or whatever.

Today it is probably third generation, but the fact that not one single solitary VUTEk printer is exhibited featuring this ink gives me pause. And at SGIA 2009 I heard comment that VUTEk does not consider the ink a viable product for serious production (as they clearly show by not having any product at any trade show using it).

What also made me a bit hesitant on MuBIO solvent ink was hearing a sales rep tell a sign shop owners, "this prints on any material." This is the worst kind of exaggeration. This is what caused the demise of the ColorSpan 5440uv series (and the demise of the HP version also). **Two reasons:** hybrid style pinch rollers over grit rollers can't effectively feed most heavy or thick rigid materials without skew or stutter. Second, most grit-roller systems can't feed the end of the material through the printing gantry area: you need to tape, by hand, a final segment to allow the entire main board to feed trough (or you need a second set of back pinch + grit rollers).

Thus I would be skeptical that any hybrid construction (no matter what ink) is a viable aternative to a combo belt or a dedicated flatbed (and yes, even a combo belt has occasional skew issues with heavy MDO board).

However, if all you need to print is one or two kinds of boards. If these boards feed through completely (without needing an accessory tape-on system for each board). And if the image does not rub off your material or abraid off later or have other issues, then it is a good idea to look at the Bio Hybrid Printer. But this is not, and unlikely every will be, a viable substitute for a UV-cured flatbed printer.

And as a more useful ink, I would rather test Sepiax water based ink: it prints on everything but glass. Naturally no ink is perfect but the fact that not one single other manufacturer has jumped to focus on bio-solvent ink suggests there are reasons. For UV inks there are about 45 manufactures: this proves it's an ink with a past, present, and future.

Nicholas and Karl-Heinz Ebner (Sales Management) inspecting some samples printed on poliamid ski with Sepiax.

HP latex ink

The release of affordable HP latex ink printers, the 42-inch and 60-inch HP Designjet L25500 was the major technology breakthrough of SGIA 2009. I saw these printers a week before at VISCOM Duesseldorf and was trained in these printers in July, under NDA, in Barcelona. But I am cautious.

There will be separate FLAAR Reports on these, and possibly a separate report on the L65500 latex ink printer also.

HP Designjet L25500

FLAAR Inventory of Distributors

FLAAR offers full-color PDFs on all distributors in the US. We are also preparing lists of all distributors in Germany, in Middle East, in France, in Italy. Our list of all distributors in South Africa will be issued this month. These lists can be purchased by Subscription or individually from www.wide-format-printers.net or by writing ReaderService@FLAAR.org.

New Orleans as a venue for a trade show

A positive comment first: the hotel shuttle bus system was the best I have seen at any city in the world. They bus came very frequently to my hotel (Hampton Inn Downtown) to take us to the Convention Center.

After this positive comment, lets also look at a few things that were not done properly. Whoever made the announcement at the end of each day (at 5 p.m.) was not appropriate. The message was not friendly. It said, in effect, get out of the convention center immediately.

This was rude, and unnecessary.

It was also rude to turn off the lights precisely at 5 p.m.

A convention center should be appreciative that anyone takes their time, and their money, to travel to a far-away city and attend a trade show in the middle of an economic recession.

And a trade show organizer should be thankful to potential buyers who are why an exhibitor would exhibit. To kick everyone off the floor at 5 pm is immature at best. Clearly the organizers have not attended many European trade shows, where booth parties go into the night.

And on this subject, I was told there is a rule no alcohol in the convention center. This I can understand and accept: after all there is legal liability. But again, it is immature relative to European convention centers and makes America look at bit primitive or prudish. Plus there were people openly drinking beer in booths from noon onward anyway.

Meal prices in New Orleans were inappropriate even in a boom economy. The one $35 meal that was the only thing on the menu that was not seafood was inedible. Unfortunately my pet dog is at my house in Guatemala but even he would look at me if I fed him the 60% of the "steak" that was gristle and fat, and would ask, "why did you feed me this? Normally even the scraps you feed me are better."

But, since dinner companions were pleasant each night, I enjoyed the discussions of the industry. I had so many meetings that one night I had to eat dinner twice (though the second time I waited and just had desert).

In closing I would like to return to favorable comments: Hotel prices, for example, were acceptable. Thus I thank whoever in the city or at SGIA were able to keep hotel prices reasonable.

SGIA attendance

Attendance the first two days was not overwhelming but was acceptable. Attendance the last day was low in the morning but a tad better around noon.

Someone mentioned they had about 14,000 people, down from 16,000 last year. These are not official figures and frankly I am always wondering what and how any trade show counts. One trade show counted as "exhibitors" every 10x10 booth space. So if one exhibitor had a 10x30 booth he was counted as three exhibitors.

This is cheating, and a tad unethical. Misleading would be a better word.

Length of a trade show: how many days is too much?

Clearly it was good that SGIA dropped the trade show from 4 days to 3 days.

This reminds us that DRUPA 2012, at a projected length of 13 days, is absurd. In past decades DRUPA was the Mecca for printing machinery, but today you can go to FESPA or VISCOM. For year 2012 it is ridiculous to expect a company to require their employees to survive in Duesseldorf for TWO WEEKS, at the overpriced hotels.

Wide format inkjet printer companies, laminating companies, and related companies should avoid any city, such as Duesseldorf, that over-charges them for hotels during a convention.

PRINT 09, at six days, was judged by all wide-format printer manufacturers as being too long: first two days and last day were poorly attended. This show would have been significantly better for exhibitors if it were three days. But since PRINT 09 is every four years, and has all the major offset printer machinery vendors. They say they need more days because it takes so long ot move, set up, and take down their huge machines. One nice thing about PRINT 09 is that Chicago is a friendly city with hotels not priced out of reason (not cheap, but bearable if you get the trade show discount arranged by the show organizers).

But printer manufacturers are not always bringing their largest machines to a trade show any more: it is less cost to fly the printshop owners to the factory or main demo room.

And the main fallacy is that having more days at a trade show will attract more potential buyers. A longer trade show does NOT attract more people: a long trade show discourges exhibitors.

What attracts more buyers to a trade show is having more products exhibited. So if exhibitors stay away from DRUPA because it is 13 days long, and instead exhibit at FESPA that year because it is four or five days, then DRUPA 2012 will be a huge disappointment.

CeBIT disintegrated as a major trade show for wide-format printers. It may still exist as something else, but I don't even list this show any more. Seybold was a huge show in America, with two giant halls in its heyday. I believe they either went bankrupt or otherwise disappeared.

There was another substantial show held in Las Vegas in past years; it disintegrated also. DRUPA will not go bankrupt but it will definitely eventually need to face reality of the inkjet printer world. We are not offset printer manufacturers; we are not flexo or screen printer manufacturers (where were they at SGIA? SGIA = Screen Graphics International Association, or something comparable). They renamed themselves Specialiy Graphics.

FESPA 2010 will be five days, which may be okay for Europe, but thirteen days for DRUPA is asking for wide-format printer companies to decide it is excessive, and to switch to exhibiting at FESPA and abandoning DRUPA.

Where to find FLAAR at a trade show?

This year FLAAR attended the major international trade shows and we are gradually testing regional events, such as T-Rex in Kiev, Ukraine. I also attended VISCOM Paris this year for the first time. I always attend either VISCOM Milano or VISCOM Madrid, but Spain is downsizing too much this year so I will skip the Spanish VISCOM sign show and concentrate on VISCOM Milano in Italy.

For 2010 I hope to attend more trade shows in Eastern Europe and Middle East. If you wish to have FLAAR at your trade show event, or provide a booth-lecture, you can request this professional service via ReaderService@FLAAR.org

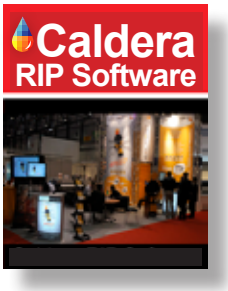
FLAAR is already booked to give several lectures at SignAfrica in 2010, and will give two lectures at Graphics of the Americas 2010.

XY Cutters options

Once you have a UV-curable printer, the next item you should consider is a digital XY contour cutter-router.

FLAAR has been inspecting various brands of XY contour cutters and routers, including visiting factories where they are manufactured and doing site-visit case studies.

During October more FLAAR Reports will be issued on this subject. Here are a few photos to show you what we will be evaluating



These reports on RIP software and Color Management for serious UV printers are free downloads on all FLAAR web sites (follow the link to 'free downloads') http://www.wide-format-printers.net/reviews_reports_evaluations/free_download.php

RIP, COLOR MANAGEMENT, and ICC Color Profiles options

Once you have a serious UV-curable wide-format printer, you may prefer to have an equally serious RIP software and color management equipment.

The RIP software for simple water-based printers such as Canon, Epson, and HP may not be the same RIP software that could be most effective and productive on a UV-curable flatbed or UV-cured roll-to-roll production printer.

I first noticed Caldera RIP on Gandinnovations UV printers several years ago, then I saw Caldera being used at the Mutoh Europe factory demo room in Belgium.

When I was visiting the Durst factories in Europe I again noticed that they were using Caldera RIP software.

So I requested access from Caldera so I could visit their world headquarters in Strasbourg, France, to spend several days learning more about their RIP. As a result there is now a FLAAR Report photo essay on this software.

Most recently I have seen Caldera RIP at the Shanghai printer trade show in China, at DRUPA in Germany, at FESPA DIgital in Geneva, SGIA '08 and Viscom Italy '08.

When I visited a large printshop in Maribor, northern Slovenia, they were using Caldera RIP and the manager of technical services for this company said, "*Caldera does a good job*." This company in Slovenia has about eight UV printers (about five of them from Durst) and an equal number of large solvent printers. They originally used a GretagMacbeth color management system but switched to BARBIERI because the BARBIERI spectrophotometer can read more efficiently and can handle textiles, backlit, wood and other materials that are either awkward or difficult on other brands of color management instruments. You can learn about the BARBIERI equipment either from their headquarters in Brixen or their distributors worldwide.

Caldera also offers a highly regarded spectrophotometer from Barbieri, the leading color management company in Italy (they are headquartered in the same city as Durst, the manufacturer of Rho UV-cured printers).

For further information on Caldera contact Joseph MERGUI mergui@caldera.fr
If you have questions about color management, if you are in the US you can contact: ImageTech at: www.ImageTechDigital.com
Mark Spandorf (owner and president), mark@imagetechdigital.com
or 510 238-8905.
If you are in Europe or the rest of the world you can contact **BARBIERI** directly at: BARBIERI electronic snc,
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www.BARBIERIelectronic.com
Tel.: +39 0472 834 024
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These are some of the most

Recent FLAAR Reports (2007-2009)

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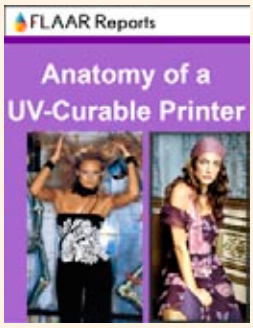
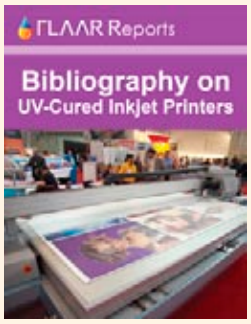
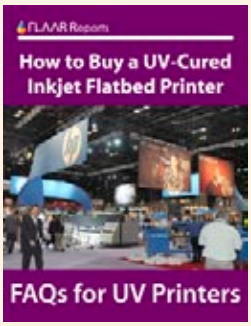
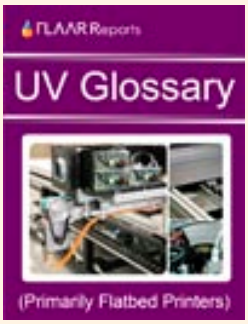
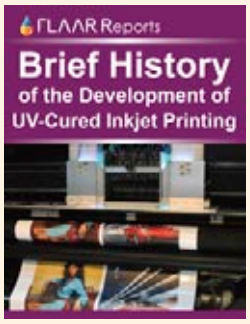
Introduction to UV Curable Inkjet Flatbed Printers

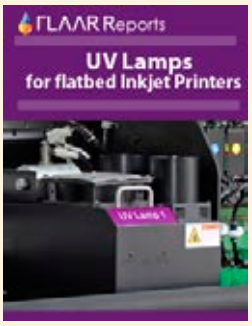


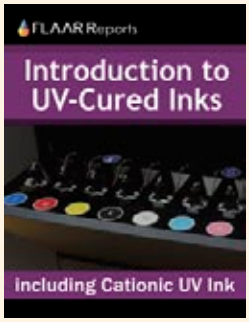




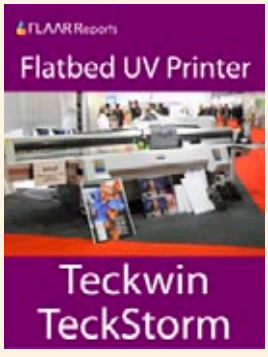








Most recent UV Printers

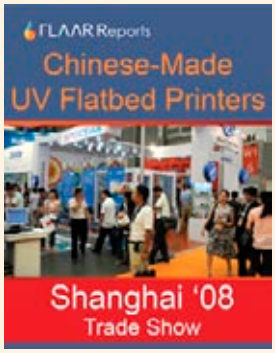


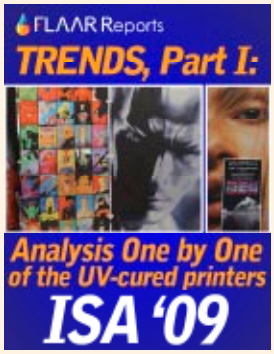
These are some of the most

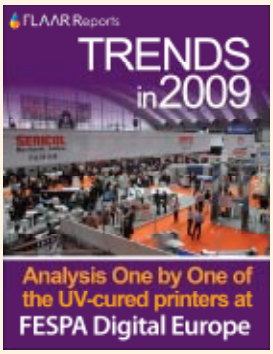
Recent FLAAR Reports (2007-2009)

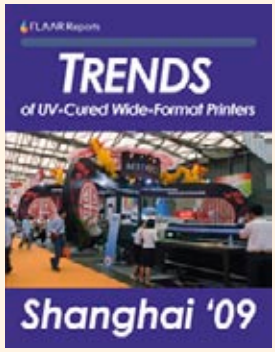
You can find these and more reports at: www.wide-format-printers.NET

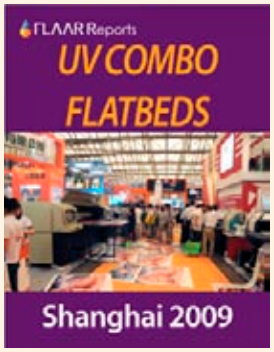
Comments on UV Inkjet Printers at Major Trade Shows 2007-2009











UV Printers Manufactured in China, Korea and Taiwan