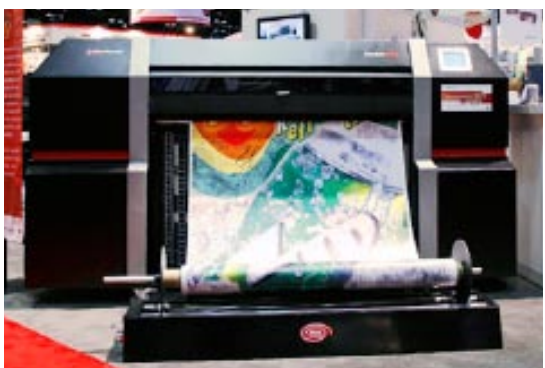
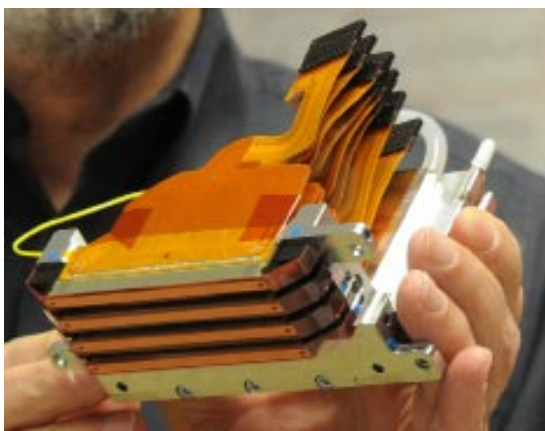


PREVIEW

of FLAAR Reports on UV-Cured Inkjet Printers
Flatbed, Combo, Hybrid & Roll-to-Roll





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With more than 45 manufacturers producing wide format UV printers its tough to understand the differences among all the models. Actually there are now over 101 models of UV inkjet printers available to choose from. So which UV-cured ink printer should you select?

Prices on UV printers are dropping too. So now is the time to obtain all the latest information on UV-curable inkjet printers from Dr Nicholas Hellmuth + FLAAR.

We have added 17 new reports last year. More than a dozen reports have been updated already in January and February 2007. Many reports were updated during August and September 2007. New reports have been added for 2008 and are being added and updated now in 2009, as well as updates of pertinent reports from past years.

What little is available on the Internet are just PR releases or idealistic "Success Stories." But you need to learn the "Failure Stories" too. The downsides are as important to learn as the benefits. No one else reveals these facts, so it helps to have a university institute that works hard to provide the pros and cons of each aspect of UV-curable inkjet printers.

We have dedicated six years to research on UV-cured flatbed technology, and the FLAAR Reports you see here are the results of Professor Nicholas Hellmuth's quest for which UV-cured inkjet printer(s) are optimal for various kinds of signage, architectural decoration and unique applications.

Screen printing companies, sign shops of all sizes, photo labs come to FLAAR to seek our help in suggesting what UV-cured printer that they should consider for POP, banners, and other display graphics. So again, all our years of research are intended to assist a wide audience.

Plus we have noticed that our many avid readers also include manufacturers distributors, and sellers of printers, RIPs, substrates, and inks. So we can have a positive effect by providing a complete consulting service on what features and capabilities these printers and consumables should provide.

Most print shop owners and operators only ask about one thing: cost and ROI. They forget that sooner or later they need to know what components are in the printer. You need to learn more about the printheads, the inks, and UV-lamp characteristics. Just knowing the print speed is not enough. So FLAAR provides in our full-color reports in PDF format what the manufacturer's spec sheets often neglect to mention.

Here, for 2008, are the results of the research of our university-based institute, FLAAR



Diverse applications from a Mimaki 605C UV-cured printer.



Gerber ion at SGIA 07*



Thick pieces of wood printed on with a ColorSpan 9840.

These are some of the most

Recent FLAAR Reports (2007-2010)

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



Series #1

Introduction to UV-Curable Inkjet Flatbed Printers

How to buy a UV-Cured Inkjet Flatbed Printer:

FAQs: Questions to Ask Before you Decide Which Brand of UV Curable Flatbed Printer to Purchase,

Updated for June 2006. Updated for 2007. Most recently updated June 2008.

Imagine if you actually could ask penetrating questions, before you buy? Before you decide which brand? Before you spend between \$60,000 and \$450,000, you might want to arm yourself with Nicholas Hellmuth's questions to ask BEFORE you buy.

No, we can't save you from every mistake, because some printers don't quite function as advertised. But you sure will know more after reading this report than you did before.

And when you are about to spend a quarter of a million dollars, we highly recommend you invest a modest amount to acquire the FLAAR Reports so you can relax and be assured that you are forearmed to face the alluring ads. This report teaches you the questions you need to know; knowing the answers is nice, but knowing the questions is essential. So this report gives you the questions; the answers you get when you have these questions to face the sales rep, distributor or manufacturer.

The updated edition of this publication by Professor Hellmuth is in its own way a general introductory booklet on the basics of UV-cured inkjet printers. It is an excellent way to initiate your learning about what to look for (and what to watch out for with misleading or confusing spec sheets). Protect yourself by becoming a savvy buyer.

Learning Terms & Jargon on UV-Flatbed Printers

The FLAAR Reports are dedicated to assisting you to learn about

Abrasion resistance, rub resistance and scratch resistance. How good is UV ink?

Adhesion, How long will the ink be able to adhere to the material?

Applications, what applications can bring profit to your company?

Banding defects, when is this an issue, and on which brands of printers?

Combo, how does a combo UV printer differ from a hybrid UV printer

Flexible substrates, when do they work, and when and why don't they work?

Glossy finish, can you achieve this surface with UV-curable ink?

Matte surface, which is harder for a UV system to obtain, matte or glossy?

Roll to roll, do you want, or need this? If so, which printer lacks it?

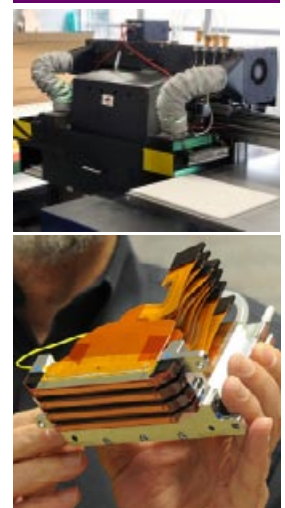
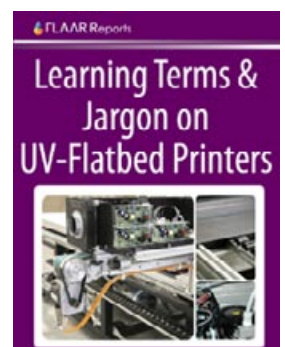
White ink, why is white ink so difficult to produce?

Xaar, how do Spectra and Xaar printheads differ? What about Ricoh-Hitachi?

And dozens of other terms and jargon that are useful to know so that you can speak with a sales rep and read the UV-curable ink advertising claims and understand what in the world they are talking about.

A UV-curable inkjet printer is not cheap. So we thought it would be a good investment to help people understand the jargon in the advertising and printer specs if FLAAR offered a glossary. So here it is. We hope it helps you understand both the terms, benefits and occasional issues, with UV-curable inkjet technology.

First issued 2003. Updated February 2004; updated April 2004; updated June 2004, updated December 2004, updated May 2005, October 2005, November 2005, June 2006, February 2007, June 2007. Most recently updated May 2008.



Bibliography of UV-Curable Inkjet Inks and Printers.

A bibliography is something a university professor does well.

First issued February 2004. Updated October 2005. Updated again June 2006.
Updated March 2007.

How does a UV-Curable Printer differ from a Solvent or Eco-Solvent Inkjet Printer?

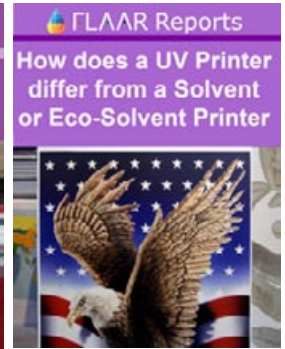
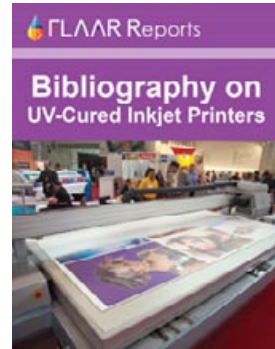
Since many people who wish to obtain a UV printer already have or know about solvent printers, we have produced this handy little report to provide a basic introduction to the similarities, and differences, in each class of inkjet printer.

Updated December 2005, October 2006 and updated again for January 2007.

How a UV-Curable Inkjet Flatbed Works: Anatomy of a UV-Curable Ink Printer

This is a FLAAR Fast Facts, so we won't overburden you with technical detail. Fast Facts are precisely that, a precis of useful information in an easy to understand format.

Updated December 2005. Being updated for October 2006.



Printheads for UV Printers

Why are people switching from Xaar and Spectra to Konica Minolta, Seiko and Toshiba Tec heads? Quick primer lists every brand of printhead out there. So any UV-cured ink flatbed that you are thinking about, now you know which printheads to look for.

FLAAR Fast Facts

Updated December 2005, October 2006 and updated also for January 2007.

Most recently updated April 2008.



With industrial UV printers offering text as little as 4pt, it sure helps to know the pros and cons of all the printhead options available out there. Learn why some printer manufacturers talk openly about their printhead brand and model whereas other companies try to hide this information.

Learning about UV-Lamps & UV-Curing for Understanding Flatbed Inkjet Printers

New, December 2005. Updated for February 2006. Being updated for October 2006 and again in October 2006. Updated January, April and again September 2007 based on a week with Sun LLC, a successful integrator of LED lamps for UV curing. Updated March and again in May 2008. Updated again September 2008. Most recently updated November 2008.



Speak directly with Dr Hellmuth, in person

If you purchase three series (all #1, all #2, and any four out of Series #3),

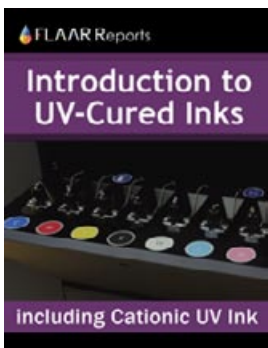
Or

If you purchase any seven reports out of Series #3 then, if you wish, you can consult personally with Dr Hellmuth. You can either meet him during a trade show or UV conference (such as IMI), or you can telephone and ask questions directly. Normal consulting fee varies between \$2000 and \$3000, plus expenses. But, you can get 30 minutes with Professor Hellmuth, at no cost, if you purchase the entire group (set) of FLAAR Reports #1, #2, and #3 on UV-printers.

If you need more time, \$300 per hour, but we can usually answer most of your remaining questions in 30 minutes because now you have all the FLAAR Reports to provide tips, help, information, and suggestions.

This offer is open to end-users, printer operators, or print shop owners.

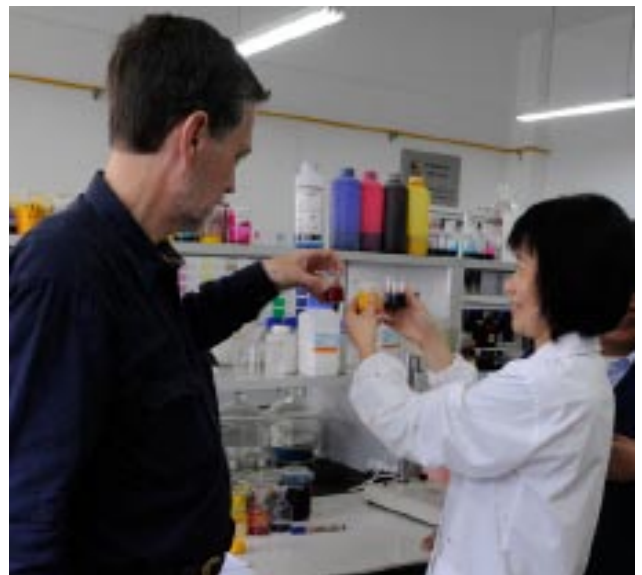
If you are a printer manufacturer, reseller, distributor, or manufacturer of UV inks or materials to print on, please ask for information on how to arrange to consult with Dr Hellmuth, FLAAR at Bowling Green State University: fax 419 372 8283. Or, you can download the "Consulting for UV manufacturers & distributors" PDF or ask that it be sent to you by faxing us at the above number or CustomerSupport@FLAAR.org



Introduction to UV-Cured inks

FLAAR Fast Facts, so not a long dissertation, but instead a basic annotated list of all the companies that make UV-curable ink for flatbed printers, including a list of sources on after-market inks, plus a note on FLAAR+BGSU university labs program of evaluating new sources of UV-curable inks. This report has been in constant updating as we learn more about cationic ink.

First issued October 2005. Updated June 2006; During this update we added the first chart of ink costs. Updated March 2007, October 2007, November 2007, January 2008, April 2008, June 2008, July 2008, August 2008, September 2008, October 2008. The most recently update was made in November 2008 after SGIA, where we gathered information to add a new and more complete ink price chart.



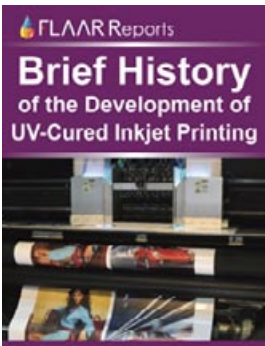
Dr. Hellmuth and Dr. Wang at InkWin lab, Shanghai, China



Classification of more than 60 UV-Curable Inkjet Printers

Because there are more than 60 models of UV-curable printers by more than 30 manufacturers, end-users are faced with insurmountable obstacles in trying to figure out the difference between any two models. Over and over again print shops send us e-mails asking for our help in deciding which make and model they should purchase.

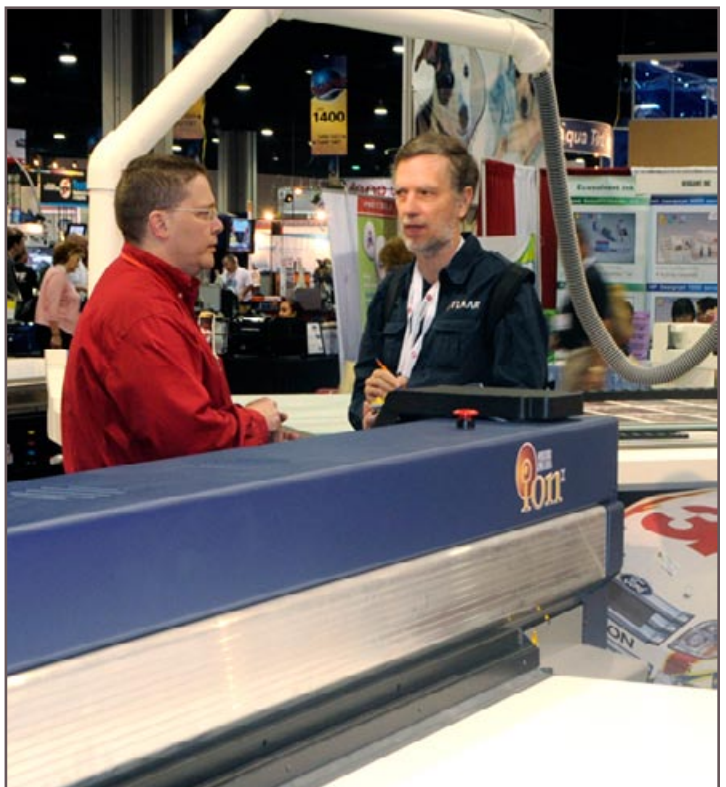
First issued May 2006. Updated June 2006, February 2007, May 2007, July 2007, November 2007, April 2008. Most recently updated September 2008.



Brief History of the Development of UV-Cured Inkjet Printing

This introduction to a time-line is only for UV-curing for wide-format inkjet. I do not cover UV-curing of narrow-format label printers.

First issued April 2008.



FLAAR has become the most complete source of information on UV-Curable printers, in part because we get information from sources as different as attending trade shows (only in 2007 FLAAR attended about 15 trade shows around the world), visiting factories, talking directly to sign shop owners and printer operators. At the left, Nicholas Hellmuth at SGIA 2004. At the right, Nicholas at SGIA 2008.

Preview of
Nicholas Hellmuth's
Series #2:
Applications of UV-Curable Ink Flatbed Printers
& Miscellaneous Reports on UV

A List of UV-Curable Flatbed Inkjet Printer Applications for screen printing and sign shops together with Everything you can Print with Flatbed Printers, especially Architectural Uses

FLAAR Fast Facts format, Updated January 2007.

Professor Hellmuth's background is in architecture so he has a personal interest in inkjet printing on doors, wall sections, window glass, window blinds and everything else. This report also covers what materials to avoid? Materials that do either poorly or which might damage your printheads.

Notes on the Adhesion Situation for Materials Printed on with UV-Curable Ink
 Frank discussion of printability, UV-lamp heat resistance, and abrasion resistance and adhesion of a comprehensive inventory of flat and rigid signage and architectural materials.

Updated for February 2006. Updated January 2007.

True Cost Calculation Chart for UV Flatbed Inkjet Printers under \$80,000

Some printer ads hide the true cost of the printer. So we reveal how to detect hidden costs to you can calculate the full actual price of the printer. The less you intend to spend on a new UV flatbed, the more you need the protection of the FLAAR Reports.

New Feb. 2005. Updated May 2005. Most recently updated June 2006.

What about White Inkjet Ink?

At last you can print with white ink on dark cloth, on dark Lexan. But why do only some UV printers offer white ink, and others not?

Updated June 2005. Updated again June 2006. Most recently updated April 2008.

FLAAR Reports
A List of UV-Curable
Flatbed Inkjet
Printer Applications



FLAAR Reports
Adhesion for Materials
Printed on
with UV-Curable Ink



FLAAR Reports
True cost calculation
chart For UV Flatbed
Inkjet Printers
under \$80,000



FLAAR Reports
What about White
Inkjet Ink?



If you purchase three series (all #1, all #2, and any four out of Series #3), Or If you purchase any seven reports out of Series #3

Then you may also receive 30 minutes visiting with, or speaking on the telephone with Dr Nicholas Hellmuth. When you ask we will send you his personal telephone number, and hours he is available to speak with you (and with your colleagues). You can ask questions in Spanish, English, and German. In person you can also speak to him in Portuguese, French or Italian.

Preview of
Nicholas Hellmuth's

Series #3: UV Printers Model-by-Model

FLAAR often hears tidbits that are not revealed to end-users elsewhere. And since Dr Hellmuth is fluent in German, he can converse with people at Photokina, DRUPA, FESPA and other German trade shows in their own language. So he can translate and bring all this to you in plain English.

Plus we can often figure things out based on our background experience. So even if you attended any or all of these trade shows yourself, the FLAAR Reports still have priceless information that can be useful to you.

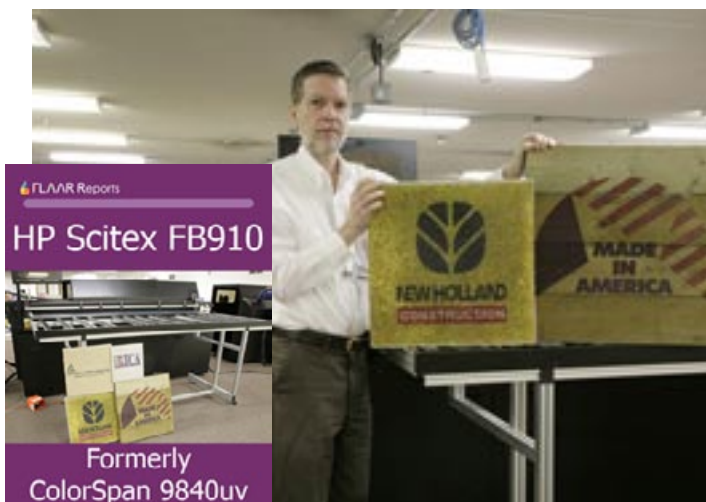
Our "FLAAR Fast Facts" means we have inspected the printer and translate their advertising claims into a frank and more realistic appraisal of what you really get (which is seldom what the ads suggest).

First Look means this printer is worth scrutinizing closer. In a "First Look" format we answer crucial questions so that you know the pros and cons of this printer. "Second Look" means we have grilled key personnel for hours on end. However we do not inherently accept what we are told; we use common sense to read between the lines. Yet for other questions it is best for you to get the answers directly (from a print shop that has the printer or from an ethical sales rep or corporate manager). So we have many questions open: this is because most buyers are unsure of what questions to ask, especially with such new technology. So we provide the crucial questions.

Third Look means we have additional sources of factual documentation, far beyond the spec sheets available at a trade show. Still, to assist the usability of the reports, we keep all our material in spec-sheet format, with informative annotations and comments to provide tips.

We will estimate that you wish to learn more about specific printers. The material you are faced with are the spec sheets and the advertising brochures put out by that company. We are the only source that takes these ads, looks at them carefully and provides comments when there is a question about veracity of the claim.

Also realize that knowing the questions is crucial. Even when the answer is not yet available. Questions are how we all learn about new things in our business. So this is why the reports are all in a neatly organized questionnaire format.



Currently over 101 models of UV printers exist from 45 manufacturers. It would take several years to do actual tests of each model (and a few manufacturers obviously prefer that we not have access to testing their printers; they want the end-user to hear only the manufacturer's description). If a printer evaluation includes first-hand experience (which implies a site-visit case study), then the report is labeled as a site-visit case study. So we inspect the printers as best we can. So far, even on FLAAR Fast Facts and First Level reports, we have yet to find anything else on the Internet that offers alternative level of help and assistance to people seeking information.

Thus every report comes "as is" because access to each printer is totally different. Our reports have more information on Durst, IP&I, Dilli, Gandinnovations, HP ColorSpan, VUTEk, Zund, NUR, Teckwin, Infiniti, GCC, GRAPO, Sun FastJet because each of these companies has opened their doors to assist in providing documentation and information. So these reports tend to have the most information.

L&P has the least documentation, and documentation on the Durst Rho printers was a bit scarce as well (until we get back from our one-week visit in 2008). As an example of full documentation: NUR provided access to their factory, to their two head ink chemists (even access to their ink testing labs). NUR provided access to their R&D facility and allowed access to the documentation on their printers. In fact NUR flew Dr Hellmuth to their world headquarters in Israel twice during 2007 (shortly before they were bought by HP). Same with Gandinnovations: for day after day at their factory, 4 hours with their ink chemist, etc. MacDermid ColorSpan provided complete testing facilities and brought a full spectrum of concrete, wood, foam-cor, and a host of other substrates to test.

Zund spend two days doing our tests, showing me not only their entire factory, but also took is to the factories that made the parts. IP&I gave us free rein inside their factory and demo room for two days and provided access to two end-users who were doing fascinating niche applications. Sun let us literally inside their 3-million dollar UV printer and had their top managers on hand to answer any and every question we asked.

But obviously this level of access takes a huge toll on our time (it's a two day flight to Korea round trip, and two days to recover from jet lag, and this trip came 24 hours after a week's inspection in China, including visiting three factories). But we do work hard to bring our readers fresh information. Just realize that if the report you select is at a First Level, Second Level, etc, it's because that company is either difficult to access or our schedule has not yet opened up to allow a visit to their headquarters.

But, even when a company politely declines to let us set foot in their company demo room for detailed inspection and testing (Gerber and Oce are two examples), we still find out pretty much everything we need to know (especially on the Oce 250 GT).



FLAAR was provided access to every source of information available at NUR headquarters.

It costs over \$38,000 a year to send our review personnel to all these trade shows and site-visit case studies. So we feel the reports are fairly priced. Besides, there is no other institute offering independent information on UV-curable ink printer pros and cons.

Substantial discounts are available if you buy several titles at the same time.

The UV-Curable Series on Individual Printers

Agfa Anapurna and Mutoh Cobra 100

The most fascinating new UV-curable inkjet flatbed technology available so far.

New, July 2005. Updated March 2006. First Look format.

Agfa :Anapurna L, Agfa :Anapurna XL; Mutoh Cobra S65uv, Mutoh Cobra S100uv

Learn more about the which UV printer is the OEM brand that is being rebadged and painted Agfa-red and sold as Agfa and Mutoh printers.

New, May 2006. Substantially updated for October 2006. Updated Jan. 2007. Most recently updated July 2007

Agfa :Anapurna M

First Look. Most recently updated January 2008.

Anhui Liyu 1800, 2500, 3200, Lyric UV & Eureka 1808

This is the world's first report on these Chinese manufactured UV-curable hybrid inkjet printers. Includes comparative comments on the other Chinese-made UV printers: Infiniti UV, Flora UV, DuPont UV, and Raster Printers UV.

New, January 2007, First Look. Most recently updated August 2007 after FESPA 2007

Azero Creon, Azon, Hypernics

Covers the

- Azero Creon Jet UV8250F,
- Azero CreonJet UV1600F,
- Azon UV-Jet 2500-R 2W,
- Hypernics UV-FR2513,
- Hypernics HyperJet UV-F2515.

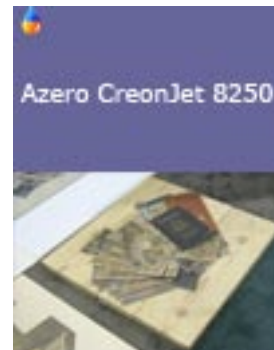
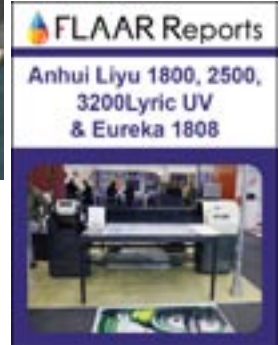
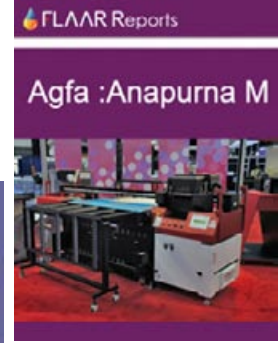
FLAAR Fast Facts. July 2005.

ColorSpan 72 UVR: Evaluation

A UV-curable flatbed and roll-to-roll printer at an enticingly reasonable price. So many people placed orders at the booth at SGIA and then at GraphExpo that ColorSpan sold out their initial manufacturing run. At present the ColorSpan 72 UVR is out-selling the Zund 215 (which costs about \$176,000, so more than twice that of the ColorSpan).

The most all-inclusive reports are on these excellent entry-level printers since these are the reports we are asked for most often.

Comprehensively updated August 2006. Most recently updated January 2007.



ColorSpan 72 UVR, Site-Visit Case Study

Updated October 2006.

We visited a large photo lab that has two ColorSpan 72uvr flatbed printers. They do both roll-to-roll and rigid materials. We then visited another print shop with a 72uvX. Plus we have interviewed other owners of ColorSpan UV-cured inkjet printers.

ColorSpan 9840uv (HP Scitex FB910): First Look at a New Productivity Combo Flatbed UV-Curable Inkjet Printer

This was the most intriguing new UV printer of 2006: even in beta-stage the printer worked perfectly (we know, we went to the factory to try it out, hour after hour). If you are considering any UV-cured printer in the \$150,000 to \$250,000 range, this report is a must-have. Will be updated again as soon as the effects of Hewlett-Packard's purchase are noticed.

First issued May 2006. Updated October 2006, updated Jan. 2007. Most recently updated January 2008.

FLAAR Site-Visit Case Study of the ColorSpan 9840uv (HP Scitex FB910)

Flatbed-combo-roll-to-roll UV-curable Inkjet Printer. During this site-visit we found out which problematic materials this printer can handle quite well. Indeed the 9840uv prints well on a key rigid material that most other UV printers can't print on hardly at all.

First issued February 2007.

ColorSpan 5440UV, ColorSpan 5460UV, ColorSpan 5445UV, ColorSpan 5465UV (HP Designjet H35000 and Designjet H45000)

First issued February 2007. Updated September 2007, a day before HP announced it had bought ColorSpan. Updated in 2008 again to discuss the multitude of issues, and to list which issues were being resolved.

ColorSpan 72UVX, Site-Visit Case Study

New, first issued February 2007.

Dilli Neo Plus UV-Curable Ink Flatbed Models

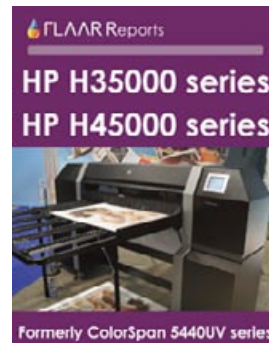
Dilli and DGI are associated with each other. Their UV-flatbed printer is considerably more sophisticated than anything from Mainland China. Plus DGI is well established in the US for several years already. Learn why Korean-made printers are better than those from China.

Updated March 2006. Updated again October 2006. Most recently updated February 2008

Digirex Technojet Flat UV (Yishan)

This is the world's first independent discussion of the Chinese printer, Yishan YS2500.

New July 2005. Updated October 2006.





DuPont Cromaprint 22UV

Chinese manufacturers now realize they won't penetrate the US market without a US partner. So Flora first allied with DuPont Imaging Technologies. But how does this quarter-million dollar printer hold up to the challenge at both the high end (Durst, Inca, Vutek) and mid-range (ColorSpan). Save time by learning from FLAAR about what is what in the world of UV-curable inkjet printers.

Comprehensively updated July 2005. Updated again, December 2005. Updated January 2006. Most recently updated May 2006. Substantial update for October 2006. Being updated for 2007 several times, since DuPont printers are no longer being sold by Pitman, which leads us to ask what is going on.



Site-Visit Case Study of a DuPont Cromaprint 22UV

What is it like to have a quarter-million dollar Chinese-made printer in your sign shop?

First issued November 2006.



DuPont Cromaprint 18UV (Lexjet Legend)

New 1.8 meter entry-level printer (new, as of SGIA '06). Why was this printer never actually launched or released by DuPont, but was released quietly by Lexjet?

First Look, October 2006. The Lexjet Legend 72HUV report was first issued July 2008. Updated August 2008. Most recently updated September 2008. It can be downloaded

In the free FLAAR Reports area on www.wide-format-printers.net



Site Visit and Case Study of Zund UV-Curable Flatbed Printer Compared with a Durst Rho UV-Curable Flatbed Printer

Updated April 2004. Here is a godsend for any screen printer or owner of a sign shop: an actual factual view inside a successful print shop what has experience with two different brands of UV-curable ink flatbed printers. Be aware that people are still trying to sell old Zund 215-C printers; even the newer Zund 215-Plus has a few quirks, so be especially sure to learn about the earlier 215 models. If a price is "too good to resist" if may be a warning to acquire more information before you buy the wrong printer.

This is the kind of research and publication you should expect from Nicholas Hellmuth. We took three members of the university lab to a sign shop and spent hours interviewing the operator and owners on the performance both of a Zund and also a Durst Rho. You will not get this type of factual (blunt) pros and cons format in a "success story" orchestrated by the manufacturer.

Durst Rho 205

What makes the Durst one of the top three picks for high productivity? This is a review of the spec sheet with commentary.



Durst Rho 600

FLAAR Second Look.

New, July 2005. Updated February 2006 based on additional inspections. Updated Jan. 2007 based on visiting a printshop with a Durst Rho. We were very surprised to learn the head manager's comments on his first six months of using this printer. Updated again in Feb. 2008 based on visiting the Durst factory and headquarters in Lienz and Brixen.

Durst Rhopac

FLAAR Fast Facts.

New, July 2005. Updated January 2006.

Durst Rho 350R

FLAAR Fast Facts. Access to information is limited and access to testing has been non-existent. But in 2008 it was possible to spend an entire week at Durst, testing and learning more about these printers.

New, December 2005. Updated Feb. 2008.

Eastech: Mature UV-flatbed Printers from Taiwan

Learn how Taiwan manufacturers stay ahead of Mainland China, both in understanding the US, Latin American, and European markets, and in producing a functioning printer.

One model of Eastech printer is now being distributed in the U.S. by Graphics One; see our report on their Fuzion UV printer.

Completely updated 2005. Updated since October 2005. Most recently updated May 2006.

Flora LJII 1800 UV Flatbed & Flora LJII 1800 UVS-Pro

A Chinese Flora-built printer is the original chassis for the Raster Printers RP-720 UV, but are the two printers really the same?

New July 2005. Updated already, December 2005. Updated February 2006.

Flora FUV2214

Shenzhen Runtianzhi Image Technology Co, FLAAR Fast Facts.
FLAAR Fast Facts, new, July 2005.

Flora F1-180UV

The first combo-style entry-range printer (less cost than the DuPont version).

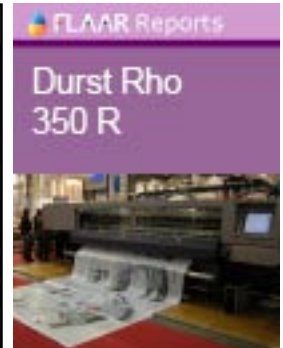
First Look, issued September 2007. In the process of being updated in 2008.

Gandinnovations JETi 3150 UV Flatbed

This is the new title (February 2007) which updates the earlier one that was just on the model 3150.

This new update is because we have now undertaken four site-visit case studies plus spent two days inside the Gandinnovations factory, so we have seen the newest models (4x8-foot version, the Jeti 1224) and the larger version (Jeti 2030). So we took the original FLAAR report on the model 3150 and updated it based on the new information.

This is one of our more comprehensive reports since we have full access to the printer, to the designer, to the tech support, and to their User Manuals. We have visited their demo room in Texas. All these factors result in thorough coverage.



Gandininnovations Jeti 3150 Site-Visit Case Study

We visited a digital print shop that had the Jeti 3150 flatbed for eight months, so were able to gather documentation on what it is like to have this printer and not one of the competing brands. The owner initially ordered an Océ Arizona T220 UV, but switched to the Gandy printer. He was also considering the ColorSpan 72uvr and a Durst alternative. Now he has the Gandinnovations Jeti. Is he happy? Is his business growing? Or was this the wrong decision?

This site-visit case study report is in addition to the evaluation. You need both the evaluation and the site-visit case study.

If you are considering any Durst, Inca-Sericol, Vutek, or Zünd printer, you definitely need to learn the pros and cons of the Jeti UV flatbed. After our initial visit to this print shop we went back several months later and did a second interview to find out how the printer was holding up. This is priceless information (before you spend over \$350,000).

First issued October 2005.

A second Gandinnovations Jeti 3150 Site-Visit Case Study

Based on spending two days in a company that had three Gandy Jeti printers: solvent, roll-to-roll UV, and a flatbed UV.

First issued December 2006.

Gandininnovations Jeti 3324 RtR UV Site-Visit Case Study

Based on spending two days in a company that had three Gandy Jeti printers: solvent, roll-to-roll UV, and a flatbed UV. This is Gandinnovations' first generation of a dedicated Roll-to-Roll UV printer. Years later the concept would evolve to give birth to what we now know as the Jeti 3348 UV Galaxy RtR (a printer that sells for its high quality) and the Jeti 3348 UV JetSpeed (a hi-speed printer).

First Issued February 2007.

Gandininnovations 1224 UV flatbed factory visit 08

The first report on the 1224 was issued after Dr. Hellmuth's first visit to Gandinnovations headquarters in early 2007. It was also possible to witness an installation in a sign shop in Texas in August 2007. Then FLAAR spent two days at Gandinnovations factory, world headquarters, and demo room evaluating the Jeti 1224 UV printer in late July 2008.

First Issued September 2007. Updated September 2008. Updated again in November after SGIA 2008.

Gandininnovations Jeti 3348 UV JetSpeed RtR

The Jeti JetSpeed is a high-speed Roll-to-Roll UV printer intended for billboards and banners, not for POP or closely viewed signage. Our first evaluation took place at Gandinnovations factory and demo room, where it was possible to know the ins and outs of the JetSpeed guided by expert operators and R&D personnel.

First issued August 2008. Updated after SGIA in October 2008.



Gerber Solara UV2 Printer

Why we at first felt this was one of the better of the newly released UV printers in the budget price class? Yet it has a downside, actually two. If you are considering the Infiniti, Raster Printers, GCC 183uv or ColorSpan, you also ought to learn about the Gerber Solara (since it is not assembled in China).

Updated December 2005. Being updated again during June 2006.

Gerber Solara Ion

This was the most exciting printer introduced at SGIA 2007; it was shown again at VISCOM Italy a few weeks later. Over 100 printshops placed orders. Unfortunately, few of them had available the same information that we did. The FLAAR Reports list, one by one, the issues, problems, and challenges of cationic ink and "cool" UV curing lights. We still feel this is the most interesting UV flatbed printer introduced in the last years, but to place and order for this printer without first reading the FLAAR Reports is sort of like buying an Edsal. We have been gathering information in as many trade shows as possible. Dr. Hellmuth got to know the ins and outs of the ion at the factory in mid September 2008.

First issued November 2007. Updated December 2007 four times. Updated monthly from January to July 2008. Repeatedly updated during August 2008, including after FESPA Mexico. Updated again in September. Most recently updated November 2008.

GO Fuzion UV Flatbed Printer

A rebranded printer distributed in the US by Graphics One.
New, January 2006. Updated April 2006.

Inca Spyder 150

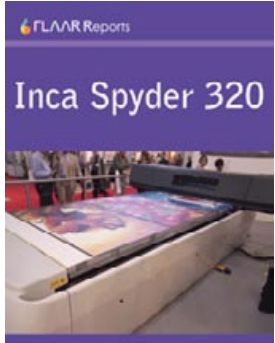
Not shown at SGIA, but we saw plenty of it at DRUPA. This is one of the few UV-printers that offers a glossy surface finish. FLAAR Fast Facts, First Look.

Updated October 2005. Most recently updated July 2007

Inca Spyder 320

FLAAR Fast Facts, which means we take a close look at the spec sheet and comment on the pros and cons of pertinent features. FLAAR Fast Facts reveal that knowing what questions to ask is the first step to becoming a savvy buyer. The answers are easy for you to learn on your own, but only if someone provides the questions to begin with. FLAAR provides the questions.

Available since December 2005.



Inca Columbia Turbo

Truly the fastest UV-curable ink flatbed available, thus a competitor for commercial sign shops that need productivity.

Updated July 2005 with comparative comments on all Inca printers.

Infiniti UV-1612S, UV-1606, Xterius 16UVs

Covers the Infiniti Europe version, Augend, Infiniti Xterius 16UVs, and the US / Latin American version from Aeromatrix, Infiniti UV-1606. These are all manufactured by Fei Yeung Union Digital Technology.

New July 2005.

Infiniti UV, Site-Visit Case Study

Does the print shop owner like this printer? Or is he sorry that he bought this brand? If you are thinking of a low-price Chinese UV printer it might help to learn all this in advance.

First issued October 2006. Updated November 2006

Infiniti UV, Second Site-Visit Case Study

First issued August 2006. Updated May 2007.

FLAAR visited this printshop twice, to learn what it is really like to have a low-cost Chinese-made UV-cured printer.

Leggett & Platt Virtu: A Superwide UV-Curable Ink Flatbed Printer

Leggett & Platt has been making UV-flatbed printers for several years now, so has a good head start. They make the largest and most complex system, but you need to compare the resolution, graininess, and surface image quality with the competing printers. FLAAR Fast Facts.

First issued November 2004. Most recently updated June 2005.

Lüscher JetPrint 3530 UV

A mammoth dedicated flatbed from Switzerland; competition for the NUR Tempo.

New July 2005. Updated August 2005. New update issued January 2006.



Anytime you buy a FLAAR Report, and an update comes out within three months, you are entitled to the update at no additional cost if the price is the same; if the new version is a different price, you get a 100% credit for what you already paid, and pay only the difference in price (if you wish to have the update). These updates are sent manually, and you need to ask if they are available, indicating when, approximately what months, you bought the original edition.

What is it really like to have a Lüscher JetPrint UV-Cured Inkjet Flatbed? Site-Visit Case Study

If you are even thinking of a NUR Tempo, a Gandy Jeti, or a Luescher, you need to obtain this to find out what to expect. If you are about to spend over a quarter of a million (or half a million + for the Luescher) then you can afford to become a savvy buyer.

June 2006.

Is the Luscher JetPrint in Beta-Stage or a Finished Printer? Site-Visit Case Study

Second site-visit case study. Our first was in Europe; this is in the USA.
New October 2006.

Mimaki UJF-605C

What made this the highest quality UV printer for text (until newer printers came out from other companies that were also high quality for small fonts)?

First issued November 2004. Updated August 2006. Most recently updated June 2007.

Mimaki UJF-605R, RII, and RH

First issued October 2006. Updated January 2007. Most recently updated June 2007.

Mimaki UJV-110

1200 x 2400 dpi, the only UV printer in the world to offer true photo quality at close viewing distance.

New Mimaki Flatbed JF-1631 and JF-1610 (IPF 1326), 4 x 8 feet: High-Resolution Flatbed Printer

Second Look format.

New April 2006. Updated October 2006. Updated Jan. 2007. Updated again April 2007. Most recently updated November 2008.



Mimaki's new roll-to-roll UV printer: Mimaki UJV-160

Mimaki now enters the UV roll-to-roll market with LED lamp technology. Although it is actually a hybrid, since it can accept flat media up to 1cm thick, it is being promoted as a roll-to-roll printer.

First issued September 2008. Most recently updated November 2008.

Mutoh Cobra 100 (see Agfa Anapurna)

Mutoh Cobra S (see Agfa :Anapurna L and XL and Dilli Neo)

NUR Expedio 3200 and Expedio 5000 (HP Scitex XP2700 and HP Scitex XP5300)

As soon as it is possible to visit the factory we will prepare our evaluation. It's too hectic at a trade show to take as many notes as we need for a report. Updated based on two factory visits including inspecting the R&D facilities in Israel.

NUR Expedio Inspiration, and NUR Expedio 5000 Revolution (HP Scitex XP2700 and HP Scitex XP5300)

Based on two visits to Israel to inspect and test the printer in person.

NUR Tempo II (HP Scitex FB6100): An Industrial Strength UV Workhorse

See why this is probably the strongest and most robust UV printer (until the Lüscher JetPrint 3530 UV came along). But the Lüscher has issues, so the main competition is between the NUR, the Gandinnovations flatbeds, and the Océ Arizona 250.

New update February 2006. Being updated October 2006. Updated by 2007 after visiting the factory in Israel twice.

NeoltJet UV Printer

Learn why this Italian UV printer may be one of the better new options from Europe. This printer comes in three widths. But, how does it compare with the Gerber, GRAPO and ColorSpan?

Substantially updated July 2005. Will be updated based on scrutiny of the new version being presented at FESPA 2007.

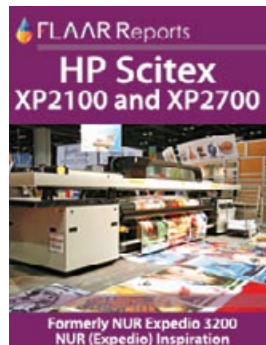
Océ Arizona 60UV: Why is this \$40,000 Printer Still not shipping?

Why trying to obtain a cheap UV-cured ink flatbed printer may not be a good idea? We all want to save money when buying a printer, but what if your "low price" printer turns out to be so low-bid that it is inadequate?

Updated May 2005.



**LED Curing
Mimaki UJV-160**



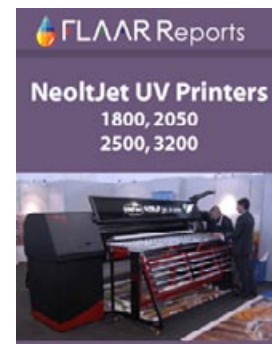
Formerly NUR Expedio 3200
NUR (Expedio) Inspiration



Formerly NUR Expedio 5000 and
NUR Expedio Revolution



Formerly NUR Tempo UV Flatbed





Oce Arizona T220UV

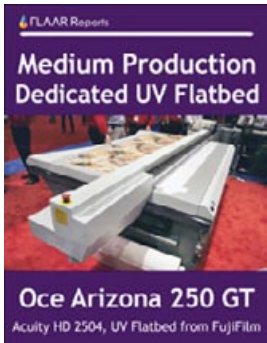
This Oce model is more mature than the model 60, and it has several other key advantages. Learn the difference between the model 60 and model 220. Why did this heavy-duty UV flatbed printer fail?

Substantially updated July 2005. New update now available.

Oce Arizona 250 GT and Fujifilm Acuity HD 2504

First Look, now available, May 2007. We have inspected this printer four times and are beginning to get information on pros and cons from an end-user. So if you wish to find out, from an independent resource, what it's really like to have the Oce flatbed in your printshop, this FLAAR Report will benefit you.

Updated summer 2007. Updated already in 2008.



PIT (Printing & Imaging Technologies)

Sprint II. This Eastern European printer is in the size range of the NUR Tempo and Luscher JetPrint 3530: but what about tech support for an "unknown" brand of printer?

FLAAR Fast Facts, new July 2005.



Raster Printers, Inc, RP-720 UV, 720UVZ, and Daytona

This printer has passed from prototype (alpha-stage) to beta-stage. We have now undertaken five inspections of this promising printer. Our comprehensive FLAAR Report is the most complete that is available anywhere else.

Based on spending 5 days with the RP-720 UV printer at the factory demo center in Palo Alto, California. We then spoke with and corresponded with several people who owned this printer, so we have a reality-check. The most all-inclusive reports are on the entry-level printers since these are the reports we are asked for most often.

Updated August 2006. Most recently updated October 2006.



REDot Monsoon UV-curable Combo printer

This is unabashedly a first-look and a photo essay only. The manufacturer does not even have a web site. This FLAAR Report, brief as it is, is about the only report that exists. I thank the considerate colleague who sent me these photographs at the Prague trade show, mid-March 2008.

First issued March 2008.



Roland? Why no UV Printer Yet?

We can ask the same question of Epson and Seiko? Why no UV flatbed printer? We also explain why HP and Encad won't have this technology in their printer lineup. But what about Canon? In Portugal we saw the prototype for Roland's new UV printer, so can show what it will most likely look like when it appears. As you can see, we travel all around the world so that we can bring you news of what is available today, and what to expect next month. Should you wait for the new Roland printer? To answer this question, obtain this FLAAR Report. You won't get this information anywhere else.

Updated January 2006. Substantial update for May 2006. Most recently updated Jan. 2007.

Roland VersaUV Print&Cut LEC-300

The new Roland UV printer is unique in not being fully wide-format (it is only 30 inches) and also unique in its use of varnish. I do not mean it is the only printer to use varnish.

First issued October 2008.

SkyJet UV Flatbed Printer

First issued June 2005. FLAAR Fast Facts.

Teckwin Techsmart UV 1600 & UV 2500 (Shanghai Teckwin)

Is it risky to buy an off-shore printer with UV inkjet technology? FLAAR First Look.

This report is primarily for end-users who are faced with needing to decide whether to buy an Infiniti, Teckwin, Flora (Raster Printers) or comparable entry level printer.

Simultaneously this report is helpful for all others who need background information on each and every UV printer that exists, especially on Chinese printers, for comparative purposes.

Updated June 2006. Another update November 2006. Most recently updated June 2008 after arrival to Guatemala's distributor facilities and open house two days after.

Teckwin 1800

Teck UV 1800 with notes on TeckUV S2400.

July 2005. This report is primarily for managers and companies who need to know something about every single UV printer that is out there.

Teckwin TeckStorm dedicated Flatbed.

Learn why this is possibly the only successful UV flatbed printer made in China.

First Issued July 2008. Updated several times during 2008 based on two visits to Teckwin factory and notes taken at several trade shows.

Yishan (see Digirex)

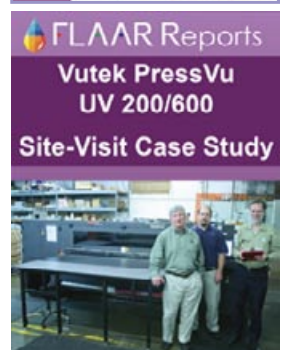
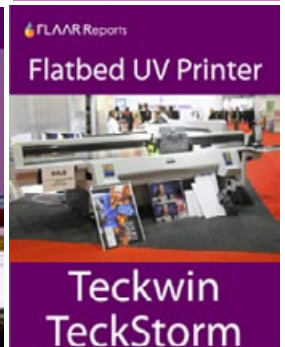
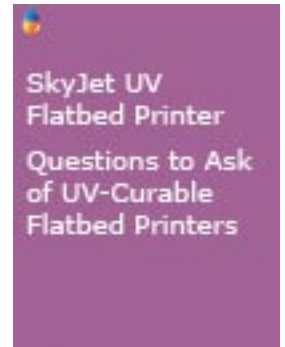
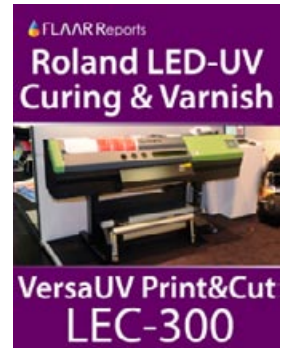
Vutek PressVu UV 200/600 with comments on PressVu UV 180/600

Updated February 2006 with comments on the ink situation relative to potential issues with longevity on Lexan. Updated August 2006.

What it is really like to own and operate a Vutek PressVu UV 200/600: Site-Visit Case Study

You won't find this kind of information elsewhere: a visit to a print shop that has had the Vutek printer for two months. But with a FLAAR Report you get the blunt truth. What is the Vutek printer really like? Is the owner of the print shop pleased that he spent a ton of money, or did he now wish he had selected another brand?

New, June 2006.



An Additional **Site-Visit Case Study of a Vutek PressVu 200/600 UV Printer**
Whether you are looking at a Vutek QS2000, QS3200 or 200/600, it sure helps to learn what it is really like to have this printer in your shop. You might want to find out before you buy it!

New, November 2006.

Vutek PressVu UV 320/400

First issued, summer 2005. First Look, being updated December 2006 with comments from site-visit case study of a company that had this printer six months but switched to another brand? What, and why?

Note that our more comprehensive examinations are being done at the factory and headquarters demo room. Here we have more peace and quiet to get inside the printer and really scrutinize it inside-out. Of course a few manufacturers are squeamish about us checking their printers at this detail! We might learn what does not work.

So it's a plus point when a manufacturer feels confident that our comprehensive inspection will reveal the capabilities of their years of experience and advanced engineering.

Vutek QS2000 AND QS3200

Based on testing this printer at the VUTEk demo room and inspecting the printer being manufactured.

First issued 2006. Previously updated January and May 2007. Substantially updated July 2007 after visiting the VUTEk factory and demo room. Updated after DRUPA 2008.

Zund UVjet 215-C, Zund UVjet 215-Plus

Visibly improved over earlier models of 2003, but now they have to contend with ColorSpan, Gerber, GRAPO, and Neolt. So if you too are confused by the plethora of choices, let FLAAR assist you in sorting through advertising claims.

There is no report elsewhere that has the full story on Zund as the manufacturer and the 215-C and 215-Plus printer compared with competing brands.

This FLAAR Report is updated and expanded for April 2006, with additional updates June 2006.

Zund UVjet 215 UV-curable Inkjet Flatbed Printer: Site-Visit Case Study

If you are thinking of buying any Zund printer, new or used; if you can't make up your mind between a Zund, ColorSpan, Durst, or Vutek, this report is a good investment.

This FLAAR Report is from the point of view of a person who owns the Zund printer. This goes together with the separate FLAAR Report on the Zund system that is our own independent observation. We recommend you obtain both our reports, since together they cover the Zund printer from all perspectives.

As important as evaluating the printer itself, this FLAAR Report has comments on the reseller. Choosing your reseller can be as vital as selecting your printer brand.

New, January 2006. Updated April 2006.



An additional site-visit case study of the **Zund UVjet 215-Plus (6-color version)**.

Does it work acceptably? It's made in Switzerland, but how does that affect you? The Zund printer was developed in the 1990's (yes, along with the Scitex Vision VEEjet+, this is the oldest technology out there). Should you opt for a newer technology? Or select Swiss craftsmanship?

Nicholas Hellmuth has visited two completely different sign franchise print shops: one has a 4-color Zund 215; this report is based on the 6-color Zund 215-Plus.

First issued November 2006

Zund UVjet 250-Combi

Now using Sericol ink, so available from the same capable folks as the Inca series of printers. The printer was withdrawn when first launched, redesigned, and relaunched in late 2006.

Updated April 2006. Updated again June 2006. Updated after it was reintroduced in autumn 2006. Already updated after we visited the Zund factory in Switzerland in 2007.



Reports on LED UV Curing, Cationic UV Ink



Since it first appeared more UV printers are beginning to use LED technology to cure or at least to pin the ink (to fix it slightly), in part because the LED lamps emit significantly less heat and less ozone, they can be turned on and off as much as you wish. Besides, LED lamps last longer than traditional UV lamps.

Dilli, Mimaki, Roland and others are among the companies that are beginning to implement this technology.

If at any time the edition you receive is not the most recent update available on the date you placed your order, notify CustomerSupport@FLAAR.org and we will send you the update at no additional cost as long as there has been no increase in the price since you bought it. If there has been a price increase, you pay only the difference in the cost.



Dr. Hellmuth taking notes on the GCC StellarJet 250UV

FLAAR photographs were used as print samples at Dilli factory.



Dr. Hellmuth at Grapo factory, to examine the Grapo Octopus and Grapo Manta models

Dr. Hellmuth at Gerber headquarters to examine the ins and outs of the ion⁺.

Series # 4

Site-Visit Case Studies

Series 4 pulls all the site-visit case studies out of Series 3, and features them, since the combination of a site-visit and a FLAAR evaluation/review together form an unparalleled fountain of information.

We also show the evaluation/review of the same printer.

ColorSpan 72 UVR, Site-Visit Case Study

Updated October 2006.

We visited a large photo lab that has two ColorSpan 72uvr flatbed printers. They do both roll-to-roll and rigid materials. We then visited another print shop with a 72uvX. Plus we have interviewed other owners of ColorSpan UV-cured inkjet printers. So find out what it is really like to have the ColorSpan flatbed UV-cured ink printer.

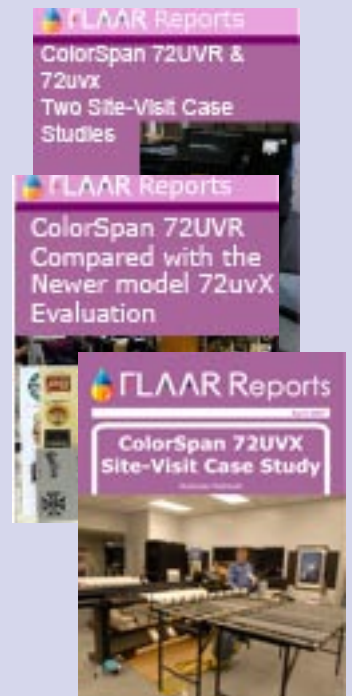
ColorSpan 72UVX, Site-Visit Case Study

Completely new, first issued February 2007.

ColorSpan 72 UVR: Evaluation

A UV-curable flatbed and roll-to-roll printer at an enticingly reasonable price. So many people placed orders at the booth at SGIA and then at GraphExpo that ColorSpan sold out their initial manufacturing run. At present the ColorSpan 72 UVR is out-selling the Zund 215 (which costs about \$176,000, so more than twice that of the ColorSpan).

Comprehensively updated August 2006. The most all-inclusive reports are on these excellent entry-level printers since these are the reports we are asked for most often.



FLAAR Site-Visit Case Study of the ColorSpan 9840uv, (HP Scitex FB910)

Flatbed-combo-roll-to-roll UV-curable Inkjet Printer.

First issued February 2007.

ColorSpan 9840uv (HP Scitex FB910): First Look at a New Productivity Combo Flatbed UV-Curable Inkjet Printer

This is the most impressive new UV printer of 2006: even in beta-stage the printer worked perfectly (we know, we went to the factory to try it out, hour after hour). If you are considering any UV-cured printer in the \$150,000 to \$250,000 range, this report is a must-have.

First issued May 2006. Updated October 2006. Updated Jan. 2007. Most recently updated April 2008.



Site-Visit Case Study of a DuPont Cromaprint 22UV

What is it like to have a quarter-million dollar Chinese-made printer in your sign shop?

New, November 2006.

DuPont Cromaprint 22UV

Chinese manufacturers now realize they won't penetrate the US market without a US partner. So Flora has allied with DuPont Imaging Technologies. But how does this quarter-million dollar printer hold up to the challenge at both the high end (Durst and Inca) and mid-range (ColorSpan). Save time by learning from FLAAR about what is what in the world of UV-curable inkjet printers.

Comprehensively updated December 2005. Updated January 2006. Most recently updated May 2006. Substantial update in preparation for October 2006.



Site Visit and Case Study of Zund UV-Curable Flatbed Printer Compared with a Durst Rho UV-Curable Flatbed Printer

Here is a godsend for any screen printer or owner of a sign shop: an actual factual view inside a successful print shop what has experience with two different brands of UV-curable ink flatbed printers. Be aware that people are still trying to sell old Zund 215-C printers; even the newer Zund 215-Plus has a few quirks, so be especially sure to learn about the earlier 215 models. If a price is "too good to resist" if may be a warning to acquire more information before you buy the wrong printer.

This is the kind of research and publication you should expect from Nicholas Hellmuth. We took three members of the university lab to a sign shop and spent hours interviewing the operator and owners on the performance both of a Zund and also a Durst Rho. You will not get this type of factual (blunt) pros and cons format in a "success story" orchestrated by the manufacturer.



Infiniti UV-1612S, UV-1606, Xterius 16UVs

Covers the Infiniti Europe version, Augend Infiniti Xterius 16UVs, and the US / Latin American version from Aeromatrix, Infiniti UV-1606. These are all manufactured by Fei Yeung Union Digital Technology.

New July 2005. Being updated October 2006.

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Does the print shop owner like this printer? Or is he sorry that he bought this brand? If you are thinking of a low-price Chinese UV printer it might help to learn all this in advance.

New October 2006.

Infiniti UV, Second Site-Visit Case Study

New October, 2006.

FLAAR visited this printshop twice, to learn what it is really like to have a low-cost Chinese-made UV-cured printer.



Gandinnovations Jeti 3150 UV Flatbed Printer

Gandi is the newest superwide printer company yet is outselling most of their competition. What makes the Gandi printers so popular?

This is one of our more comprehensive reports since we have full access to the printer, to the designer, to the tech support, and to their User Manuals. We have visited their demo room in Texas and look forward to visiting their factory in Toronto. All these factors result in thorough coverage.

Updated October 2005. New update being issued October 2006.

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We visited a digital print shop that had the Jeti 3150 flatbed for eight months, so were able to gather documentation on what it is like to have this printer and not one of the competing brands. The owner initially ordered an Oce Arizona T220 UV, but switched to the Gandi printer. He was also considering the ColorSpan 72uvr and a Durst alternative. Now he has the Gandinnovations Jeti. Is he happy? Is his business growing? Or was this the wrong decision?

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Based on spending two days in a company that had three Gandi Jeti printers: solvent, roll-to-roll UV, and a flatbed UV.

New, In preparation for October 2006.

Roll-to-Roll UV-Curable Printer: Gandinnovations Jeti 3324 UV RTR

New, in preparation for December 2006.



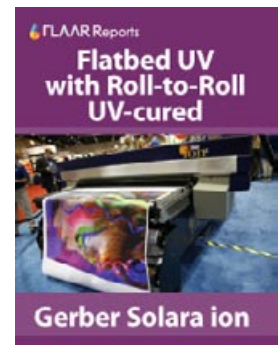
Nicholas Hellmuth at Nova Geração5, a sign shop in Lisbon that bought a Jeti 3150 flatbed and a Jeti Roll-to-Roll.



Gerber Solara Ion

We have undertaken a site-visit case study of the Gerber Solara ion^x in Chicago in late 2008. The information from inspecting this printer in a screen printing company is now incorporated in the main report on each of these printer models.

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Is the Lüscher JetPrint in Beta-Stage or a Finished Printer? Site-Visit Case Study

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Lüscher JetPrint 3530 UV

A mammoth dedicated flatbed from Switzerland; competition for the NUR Tempo.

New July 2005. Updated August 2005. New update issued January 2006.

What it is really like to own and operate a Vutek PressVu UV 200/600?: Site-Visit Case Study by Nicholas Hellmuth

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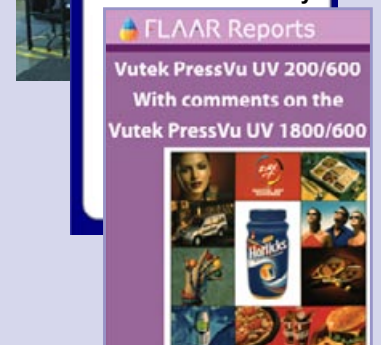
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Vutek PressVU UV 200/600 with comments on PressVu UV 180/600

Updated February 2006 with comments on the ink situation relative to potential issues with longevity on Lexan. Updated August 2006.



Zund UVjet 215 UV-curable Inkjet Flatbed Printer: Site-Visit Case Study

This is the only independent site-visit case study of what it is like to own a Zund flatbed printer. Coverage is based on the Zund 215-C and applies also to the Zund 215-Plus. The owner we interviewed has had his Zund printer for two years. He is very outspoken.

If you are thinking of buying any Zund printer, new or used; if you can't make up your mind between a Zund, ColorSpan, Durst, or Vutek, this report is a good investment.

This FLAAR Report is from the point of view of a person who owns the Zund printer. This goes together with the separate FLAAR Report on the Zund system that is our own independent observation. We recommend you obtain both our reports, since together they cover the Zund printer from all perspectives.

As important as evaluating the printer itself, this FLAAR Report has comments on the reseller. Choosing your reseller can be as vital as selecting your printer brand.

New, January 2006. Updated April 2006.

An additional site-visit case study of the **Zund UVjet 215-Plus (6-color version)**.

Does it work acceptably? It's made in Switzerland, but how does that affect you? The Zund printer was developed in the 1990's (yes, along with the Scitex Vision VEEjet+, this is the oldest technology out there). Should you opt for a newer technology? Or select Swiss craftsmanship?

Nicholas Hellmuth has visited two completely different sign franchise print shops: one has a 4-color Zund 215; this report is based on the 6-color Zund 215-Plus.

First issued November 2006.



Zund UVjet 215-C, Zund UVjet 215-Plus

Visibly improved over earlier models of 2003, but now they have to contend with ColorSpan, Gerber, and Neolt. So if you too are confused by the plethora of choices, let FLAAR assist you in sorting through advertising claims.

Since the Zund XY-flat was shown at DRUPA and then withdrawn; since the Zund 250 was exhibited for two years and then withdrawn; how much longer will Zund continue trying to manufacture UV-curable flatbed printers? Zund makes great cutters, and here there is not much competition. But in the world of inkjet printers, there are more than 50 models from over 30 manufacturers. If you are thinking of buying a Zund UV printer, you really ought to get your hands on this FLAAR Report first.

There is no report elsewhere that has the full story on Zund as the manufacturer and the 215-C and 215-Plus printer compared with competing brands.

This FLAAR Report is updated and expanded for April 2006, with additional updates June 2006.



Do you want to be a beta tester for an expensive piece of equipment?

Protect yourself by prepping yourself with the FLAAR Reports. No one can predict the future, and obviously some printers have hidden flaws that don't manifest themselves until you have the printer in-house for several months. This is why a site-visit case study is needed in the future. But few people can afford such detailed examination, so we offer a more practical "First Look" and "Fast Facts" previews of the printers based on common sense.

- Do you print signage? Then certain UV-flatbeds are excellent for you.
- Do you print photographs? Whoa, better be sure the UV you are thinking of can produce photo-realistic quality. Nicholas is a photographer and can explain which flatbeds work best with true photo quality (beware of brands that hype their quality... they may be covering up for less than ideal images).
- Do you print Point of Sale? Better find which are best.
- Which is more important: speed or quality (sorry, you know you can't get it all in one machine, but we do have suggestions for the most realistic compromise).

Prices of FLAAR Reports are on www.wide-format-printers.NET. Look for the link to UV flatbed printers at the right side of the page, in the vertical column of links.

UV Series # 5 UV Printers from Korea

UV Printers Manufactured in Korea 2007-2008. Trends, Markets & Applications

The section on UV printers of Korea is based on three visits to Korea this year, including a 3 day inspection of the IP&I factory, two days at the Dilli factory, an eye-opening visit to the D.G.I. factory and research headquarters, and visiting printshops using UV printers in Korea. I also thank Howard Baldwin, Dimatix Fujifilm (Spectra printheads) for assistance in understanding some of the new players in the UV field in Korea.

Based on the Korean UV printers of 2007. Updated summer 2007. Updated Dec. 2007, September 2008, October 2008. Most recently updated November 2008.

Agfa :Anapurna L, Agfa :Anapurna XL; Mutoh Cobra S65uv, Mutoh Cobra S100uv

Learn more about the which UV printer is the OEM brand that is being rebadged and painted Agfa-red and sold as Agfa and Mutoh printers.

New, May 2006. Substantially updated for October 2006. Most recently updated January 2007. Most recently updated July 2007

Agfa :Anapurna M

First Look. Most recently updated January 2008.

Azero Creon, Azon, Hypernics

Covers the

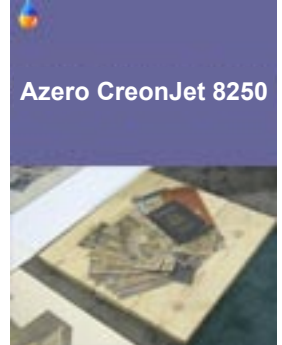
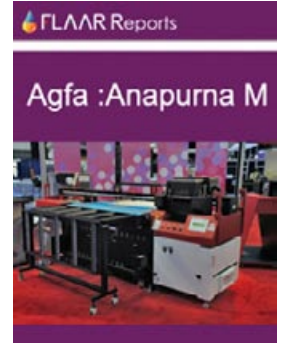
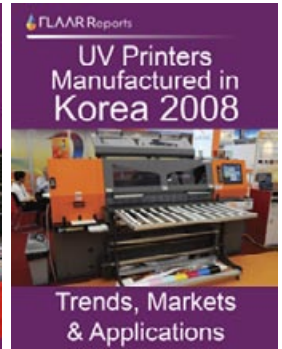
- Azero Creon Jet UV8250F,
- Azero CreonJet UV1600F,
- Azon UV-Jet 2500-R 2W,
- Hypernics UV-FR2513,
- Hypernics HyperJet UV-F2515.

FLAAR Fast Facts, new July 2005.

Dilli Neo Plus

Based on many visits to Dilli factory in Korea, where it was possible to evaluate this and the other Dilli printers from the Neo- series. We received abundant documentation for this report.

First issued December 2007. Updated January 2008. Most recently Updated February 2008.



UV Series #6

UV Printers from Taiwan

UV Printers Manufactured in Taiwan

For this report it was possible to spend three days with GCC in Taiwan, so this document has been updated over what was known previously. FLAAR is the only resource in the world that dedicates this much time and effort to learning about the UV-curable inkjet printer companies: we actually visit the printer manufacturer headquarters, indeed we tend to stay several days.

First issued November 2007. Updated January 2008.

Eastech: Mature UV-flatbed Printers from Taiwan

Learn how Taiwan manufacturers stay ahead of Mainland China, both in understanding the US, Latin American, and European markets, and in producing a functioning printer.

One model of Eastech printer is now being distributed in the U.S. by Graphics One; see our report on their Fuzion UV printer.

Completely updated 2005. Updated since October 2005. Most recently updated May 2006.

GCC Stellar Jet 183uv

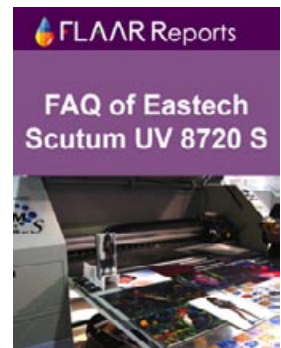
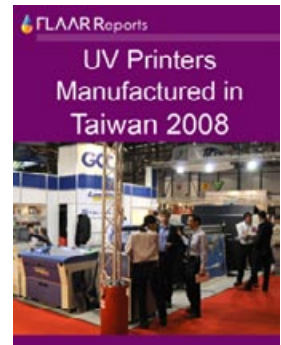
Trying to offer a low-price entry-level UV printer to compete with Chinese printers and to compete with the ColorSpan 72UVr and UVx. So if you want a budget price UV-cured printer you need to learn the facts.

New June 2006. First Look. Being updated for May 2007.

GO Fuzion UV Flatbed Printer

A rebranded printer distributed in the US by Graphics One.

New, January 2006. Updated April 2006.



UV Series #7 UV Printers from China

Chinese UV Inkjet Printers 2007-2008.

These lists are based on inspecting Chinese printers since they began to enter US trade shows from 2003 onwards. The inspiration for producing the material in this format is based on attending all four days of the Shanghai '07 and '08 trade shows and dedicating this time to inspecting every Chinese and Korean and Taiwan UV printer at the show.

First issued August 2007. Most recently updated September 2008, after the Shanghai 2008 trade show in July.

Anhui Liyu 1800, 2500, 3200, Lyric UV & Eureka 1808

This is the world's first report on these Chinese manufactured UV-curable hybrid inkjet printers. Includes comparative comments on the other Chinese-made UV printers: Infiniti UV, Flora UV, DuPont UV, and Raster Printers UV.

New, January 2007. First Look.

Digirex Technojet Flat UV (Yishan)

This is the world's first independent discussion of the Chinese printer, Yishan YS2500.

New July 2005. Updated October 2006.

DuPont Cromaprint 22UV

Chinese manufacturers now realize they won't penetrate the US market without a US partner. So Flora has allied with DuPont Imaging Technologies. But how does this quarter-million dollar printer hold up to the challenge at both the high end (Durst, Inca, Vutek) and mid-range (ColorSpan). Save time by learning from FLAAR about what is what in the world of UV-curable inkjet printers.

Comprehensively updated July 2005. Updated again, December 2005. Updated January 2006. Most recently updated May 2006. Substantial update for October 2006. Being updated for 2007.

Site-Visit Case Study of a DuPont Cromaprint 22UV

What is it like to have a quarter-million dollar Chinese-made printer in your sign shop?

New, November 2006.

DuPont Cromaprint 18UV

New 1.8 meter entry-level printer (new, as of SGIA '06).

First Look, October 2006. Update in preparation for May 2007.



Flora LJII 1800 UV Flatbed & Flora LJII 1800 UVS-Pro

A Chinese Flora-built printer is the original chassis for the Raster Printers RP-720 UV, but are the two printers really the same?

New July 2005. Updated already, December 2005. Updated February 2006.
Updated for October 2006.

Flora FUV2214

Shenzhen Runtianzhi Image Technology Co, FLAAR Fast Facts.

FLAAR Fast Facts, new, July 2005.

Infiniti UV-1612S, UV-1606, Xterius 16UVs

Covers the Infiniti Europe version, Augend Infiniti Xterius 16UVs, and the US / Latin American version from Aeromatrix, Infiniti UV-1606. These are all manufactured by Fei Yeung Union Digital Technology.

New July 2005. Being updated October 2006.

Infiniti UV, Site-Visit Case Study

Does the print shop owner like this printer? Or is he sorry that he bought this brand? If you are thinking of a low-price Chinese UV printer it might help to learn all this in advance.

New October 2006.

Infiniti UV, Second Site-Visit Case Study

New October, 2006. Updated each time we have revisited the same printshop to learn what's new in his experiences with this 1.6 meter Infiniti UV printer. So the report has been updated twice, most recently May 2007.

FLAAR visited this printshop twice, to learn what it is really like to have a low-cost Chinese-made UV-cured printer.

Raster Printers, RP-720 UV, 720UVZ, and Daytona

This printer has passed from prototype (alpha-stage) to beta-stage. We have now undertaken five inspections of this promising printer. Our comprehensive FLAAR Report is the most complete that is available anywhere else.

SkyJet UV Flatbed Printer

New (June 2005) FLAAR Fast Facts.



Teckwin Tecksmart UV 1600 & UV 2500 (Shanghai Teckwin)

Is it risky to buy an off-shore printer with UV inkjet technology? FLAAR First Look.

This report is primarily for end-users who are faced with needing to decide whether to buy an Infiniti, Teckwin, Flora (Raster Printers) or comparable entry level printer.

Simultaneously this report is helpful for all others who need background information on each and every UV printer that exists, especially on Chinese printers, for comparative purposes.

Updated June 2006. Another update November 2006. Updated September 2007. Most recently Updated June 2008 after arrival to Guatemala's distributor facilities and open house two days after.

Teckwin 1800

Teck UV 1800 with notes on TeckUV S2400.

July 2005. This report is primarily for managers and companies who need to know something about every single UV printer that is out there. FLAAR Fast Facts.

Teckwin TeckStorm dedicated Flatbed.

Learn why this is possibly the only successful UV flatbed printer made in China.

First Issued July 2008. Updated several times during 2008 based on two visits to Teckwin factory and notes taken at several trade shows.

Yishan (see Digirex)



Dr. Hellmuth has visited many times Teckwin factory in China. FLAAR invests to acquire knowledge from trustworthy sources.

UV Series # 8

Comments on UV Printers at Trade Shows
Wide-Format UV-Cured Printers Making News at FESPA Germany 2005

May 2005.

UV-cured Inkjet Printers Presented at Print '05 Trade Show

First issued December 2005.

UV-Cured Flatbed Inkjet Printers Displayed at Viscom Düsseldorf 2005

First issued October 2005.

UV-Cured Wide Format Printers Exhibited at Visual Communications, Milan, Italy, November 2005

First issued December 2005.

UV-Cured Flatbed Printers at SGIA 2005: Annotated List & General Comments on UV-Inkjet Printers

First issued December 2005.

UV Inkjet Printers at Graphics of the Americas (GoA) Trade Show, 2005

June 2005.

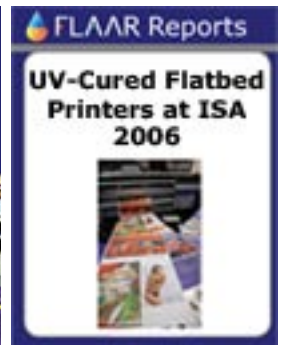
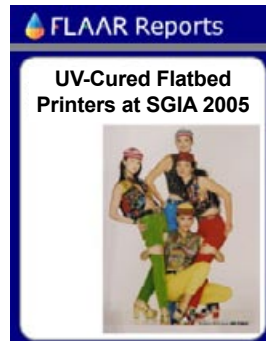
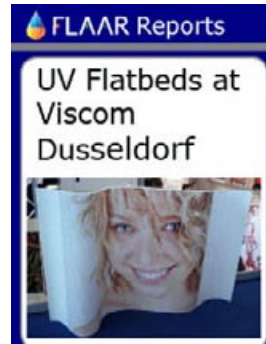
Wide-Format Printers at ISA 2005

June 2005.

UV-Cured Inkjet Printers at ISA 2006 Trade Show

April 2006.

List, comparative comments, observations, photographs in full color.



***UV-Cured Inkjet Printers at FESPA Digital Trade Show, May 2006.
In preparation for June 2006.***

Discussion of what we saw, and heard, during 5 days at this, the largest international UV printer trade show of 2006. FLAAR had a booth here, so we got inside two days before the show began, while all the printers were being unpacked, plus three days of the show itself. Dr Hellmuth was also a featured speaker in the FESPA program.

***What's New in UV-Flatbed printers at ISA 2007
(Sign Expo 2007, Las Vegas)***

New late April 2007.

UV printers at FESPA 2007

New June 2007.

Design Digital Shanghai '07

New August 2007.

UV Flatbed Inkjet Printers at Graphics of the Americas (GoA) Trade Show, 2007

March 2007.

Wide-Format Printers in the Middle East: Gulf Print Dubai 2007 Trade Show

October 2008.

UV-Curable wide-format printers at SGIA 2007

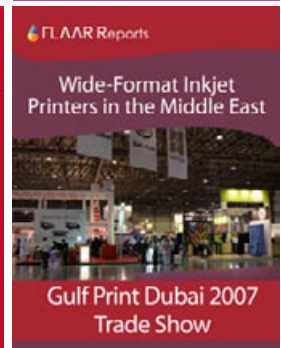
New November 2007.

New Flatbed & Roll-to-Roll Printers at SGIA 2007

New November 2007.

UV-Curable inkjet printers at VISCOM Italy 2007

New November 2007.



Trends in UV Flatbed Printers documented at DRUPA 2008

New July 2008.

Wide-Format Printers at DRUPA 2008

New July 2008.

UV Flatbed & Roll-to-Roll Printers at FESPA Mexico 2008

New September 2008.

Chinese-Made UV Flatbed Printers at Shanghai '08.

First issued September 2008.

UV-Curable Inkjet Printers at VisCom Italy 2008

New December 2008.

Trends in UV-Curable Printers at VisCom Germany 2008

New December 2008.



FLAAR also gets documentation of printers and new printing technology at major trade shows around the world. The reports offered here summarize the knowledge acquired in those events.

**Preview of
Nicholas Hellmuth's
Series #9: Trends & Market Analysis**

Chinese UV Inkjet Printers 2007-2008

These lists are based on inspecting Chinese printers since they began to enter US trade shows from 2003 onwards. The inspiration for producing the material in this format is based on attending all four days of the Shanghai '07 and '08 trade shows and dedicating this time to inspecting every Chinese and Korean and Taiwan UV printer at the show.

First issued August 2007. Most recently updated September 2008, after the Shanghai 2008 trade show in July.

Chinese-Made UV Flatbed Printers at Shanghai '08.

First issued September 2008.

Flatbed Inkjet Printers featuring UV cured inks:

Guide to which printers can print directly on rigid and/or thick material
If you would like a comprehensive annotated listing of every UV-curable ink flatbed and the newer roll-to-roll UV inkjet printers, here is a reliable list.

Most recently updated May 2007.

Trends in UV Flatbed Printers documented at DRUPA 2008

It is essential to have a report on DRUPA that is not loaded with false promises of impossible print speeds, delivery dates for a printer that won't possibly be realized, or simply a regurgitation of wishful thinking (in other words, this FLAAR Report is not a standard PR release).

New October 2008.

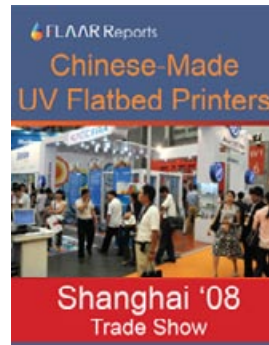
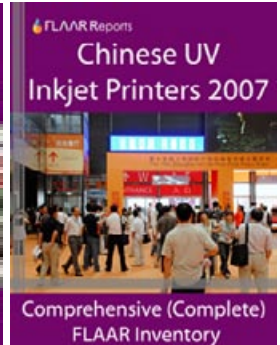
UV Flatbed and Roll-to-Roll Printers at FESPA Mexico 2008

New September 2008.

UV Printers Manufactured in Korea 2007-2008. Trends, Markets & Applications

The section on UV printers of Korea is based on three visits to Korea this year, including a 3 day inspection of the IP&I factory, two days at the Dilli factory, an eye-opening visit to the D.G.I. factory and research headquarters, and visiting printshops using UV printers in Korea. I also thank Howard Baldwin, Dimatix Fujifilm (Spectra printheads) for assistance in understanding some of the new players in the UV field in Korea.

Based on the Korean UV printers of 2007. Updated summer 2007. Updated Dec. 2007, September 2008, October 2008. Most recently updated November 2008.



UV printers at FESPA 2007

New June 2007.

UV-Curable wide-format printers at SGIA 2007

New November 2007.

What's New in UV-Flatbed printers at ISA 2007 (Sign Expo 2007, Las Vegas)

New late April 2007.


Past, Present & Future UV Printers (for 2000-2008)

FLAAR Fast Facts on UV Printers

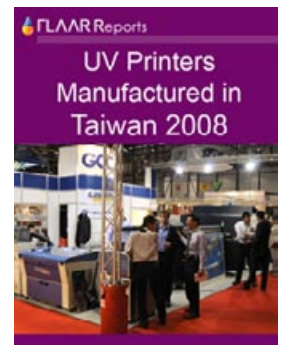
This list could be considered a “what to expect in new UV printers for 2007” simultaneously with listing all the dead, stillborn, withdrawn, cancelled, and moribund UV printers. This FLAAR Report gives the model designations and status of all known UV printer machines worldwide.

Updated October 2006. Most recently updated October 2008.


UV Printers Manufactured in Taiwan

For this report it was possible to spend three days with GCC in Taiwan, so this document has been updated over what was known previously. FLAAR is the only resource in the world that dedicates this much time and effort to learning about the UV-curable inkjet printer companies: we actually visit the printer manufacturer headquarters, indeed we tend to stay several days.

First issued November 2007. Updated January 2008.



**Preview of
Consulting with
Dr Nicholas Hellmuth**

**Series #10: UV-Curable Inkjet Printer
Consulting & Analysis**

This is a new series for 2007-2009 since we noticed so much interest by UV printer manufacturers, distributors, and printer dealers in obtaining access to the FLAAR Reports.

These reports are also available to any other category, even print shop owners, managers, and printer operators, or industry consultants.

What's Inside a UV-Cured Inkjet Printer? What makes a UV Printer Work...or Fail? Comprehensive Annotated List of Questions about every conceivable Feature in a UV-Curable Inkjet Printer.

This new report is based on Dr Hellmuth's visits to inkjet printer manufacturing facilities, demo rooms, and site-visit case studies in print shops. It takes his original UV FAQs publication and expands it to classify every aspect of a UV-curable printer. This new edition is for manufacturers, integrators, distributors, dealers, sales reps, and also for serious print shop owners, managers, and printer operators who want detailed annotated lists of what mechanical parts and software features make a UV-cured printer more effective.

Why does another brand and model of UV printer work better? What other factors cause the issues, glitches, and problems of UV curing or movement of materials through the printer?

FLAAR has personally inspected over 47 different models of UV printer from more than 17 manufacturers. We have been inside the manufacturing plants of several UV printers. We have stuck our inquisitive head inside other UV printers in the corporate demo rooms of other UV printer brands.

Dr Hellmuth has the Operator Manuals, User Manuals, and Site Prep Guides for countless UV printers. Naturally we do not give the actual manuals out, but we have absorbed the knowledge contained in these manuals, as you would expect of a professor. But most of our documentation on UV printers comes from visiting the print shop owners and managers who have UV printers in their screen printing companies, photo labs, franchise shops, digital printing companies, and family-run sign shops.

We have accomplished site-visit case studies in Athens (Greece), Istanbul, Lisbon, Chicago, Toronto, Guatemala City, Minneapolis, Toledo, Seoul, St Louis (Missouri), and elsewhere.

Plus, Nicholas really enjoys learning what makes a UV printer tick, and what makes it stutter and break down. So this opportunity to consult with FLAAR is unique, and essential.

Printers that Failed: Why? What could have saved them?

Aellora SureFine
Agfa :Anapurna 100 and Mutoh Condor
Hypernics: Azero Creon, Azon
Oce Arizona 60UV
Oce Arizona T220uv
PIT Sprint II
Roland UV flatbed prototype
Zund XY-flat
Zund 250 (later resurrected, but barely)
Luscher JetPrint 3530 UV
L&P Virtu 72
L&P Virtu HD8

Printers that are so-so: neither terrible but not outstanding. Why did they not sell well? What could have saved them? As a courtesy we do not list these publicly.

Printers that were outstanding, but did not sell well. Why? What could have saved them? As a courtesy we do not list these publicly.

Printers that were early, sold well, but have been retired. Why were they replaced so quickly?

These comprehensive reports are available as a general discussion or as PowerPoint presentations, delivered in-person, when you contract Dr Hellmuth as a consultant.

Contact via ReaderService@FLAAR.org. Please indicate whether you are end-user, manufacturer, distributor, reseller, or what other field you are in. Indicate the aspects you wish to learn more about.

New for autumn 2007.

We can provide Consulting Services on UV-Cured Ink Printers for Print Shop Owners, Printer Operators, and Individuals

If you wish to visit us at FLAAR and consult with Prof Hellmuth for up to two hours, just purchase the four complete series on UV printers (you are eligible to use the discounted price). This purchase will simultaneously allow you to inspect the FLAAR lab for no additional cost (you just buy the reports and the personal consulting is included).

If you wish to bring other members of your firm, you can bring up to two colleagues for no additional charge if they are members of your company.

If you wish Dr Hellmuth to visit your print shop, anywhere in the world, and consult for one day, just purchase the four complete series on UV printers (at discounted price), provide airfare to your location, local transportation, hotel & meals and a special discounted consulting fee of \$1000.

If you wish all that plus an extra day of personal instruction in digital photography and/or giclee, consulting/personal instruction fee is \$2,000 for the second day, so you get all UV reports listed above, 1 day discussion for UV inkjet printers, 1 day for digital photography and/or giclee (and scanners if you wish), and whichever series of Nicholas's publications on additional subjects that you prefer.

Plus (if you desire, these are not required)

- All giclee reports (including Business Plan for giclee and décor).
- All photo-printer reports.

You can also receive (included at no extra cost) if you wish,

- all solvent ink printer reports,
- all eco-solvent reports,
- all color management, ICC color tools and software reports,
- all RIP evaluations,
- all media and substrate reports,
- Survival Series (piezo vs thermal, and Business Plan)

We provide Consulting Services for Printer Manufacturers, RIP Software Developers & Companies related to Substrates, Materials and Media

If you manufacture UV-cured ink printers, materials, inks, or solvent, eco-solvent or other kinds of printers, Dr Hellmuth is available as a consultant on comparable terms: you get all stipulated FLAAR Reports, and Professor Hellmuth will fly to your demo center or headquarters (or both), anywhere in the world. He can consult in English, Spanish, or German.

If you wish to visit us at FLAAR and consult with Prof Hellmuth for up to four hours, just purchase of the four complete series on UV printers (at discounted price). This purchase will simultaneously allow you to inspect the FLAAR lab and consult with the staff, along with Dr Hellmuth, for no additional cost (other than buying the initial reports).

If you wish to bring other members of your firm, you can bring up to four colleagues for no additional charge if they are members of your company.

If you wish Dr Hellmuth to visit your manufacturing location, headquarters, regional office or demo center anywhere in the world, and consult for one day, just purchase the five complete series on UV printers (at discounted price), provide airfare to your location, local transportation, hotel & meals. There is no consulting fee if you have bought the five series.

If you wish all that plus an extra day of personal instruction in digital photography and/or giclee, consulting/personal instruction fee is \$2,000 for the second day, so you get all UV reports listed above, 1 day discussion for UV inkjet printers, 1 day for digital photography and/or giclee (and scanners if you wish), and whichever series of Nicholas's publications on additional subjects that you prefer.

Plus (if you desire, these are not required)

- All giclee reports (including Business Plan for giclee and décor).
- All photo-printer reports.

You can also receive (included at no extra cost) if you wish,

- All solvent ink printer reports,
- All eco-solvent reports,
- All color management, ICC color tools and software reports,
- All RIP evaluations,
- All media and substrate reports,
- Survival Series (piezo vs thermal, and Business Plan)

If you are a print shop owner or operator (not a manufacturer) and wish the consultation by telephone, there is no charge if you have ordered about \$500 worth of our FLAAR Reports (any series, including any mix of reports). You can obtain 30 minutes directly on the phone with Dr Hellmuth. Just send a fax to 419 372 8283, tell us which reports you have, approximately when you ordered them, what kind of information you seek, and if the information is available, we will be glad to chat with you on the phone.

For manufacturers we prefer an in-person meeting, either at the FLAAR facilities or at your location, per our standard consultant package (above). If you wish to consult first, and purchase the reports subsequently, the basic fee is \$2500 per day at the FLAAR facilities or \$3500 per day plus travel expenses at your location.

FLAAR has a fundamental interest in UV printers

You have probably noticed that FLAAR is the #1 source, worldwide, for fresh information on the UV-cured flatbed printers. That is because we find UV-curable inkjet technology is more practical in many respects than eco-solvent (which is more accurately called "pseudo-solvent"). We are especially interested in the benefits of UV-cured ink flatbed technology for architectural applications, and especially for museums. FLAAR has several new projects to prepare signage for archaeological parks and museums to create, via diaramas and other displays. We feel that UV-curable ink technology is the best for creating such outdoor educational signage.



Color management is hands-on training. You need a personal trainer, such as Mandy Daniel (above with Nicholas) to really learn color management inside out (plus lots of practice afterwards).

Your alternatives to information from FLAAR

One printer company person said that there was no need for any of their clients to have access at any time to independent outside information, since "all the information our clients need, they will get from our personnel." (in other words, the manufacturer intended to be the absolute sole source of information).

I am sure that the executives would be horrified that one of their sales reps spoke in this manner. But it is an example of what we go through in the search for information for our over half-million readers from over 62 countries worldwide. Of course that kind of booth person is our best advertisement for why a service such as FLAAR is absolutely essential.

Most sales reps and booth personnel know the FLAAR Reports and themselves use our reports for information. Most companies, especially if they have honest advertising and make good equipment or supplies, recommend the FLAAR Reports. But of course we can understand that if a particular product does not fare well in an initial evaluation, that this company would prefer that people not have access to FLAAR Reports.

But if the product is improved with better software or a hardware improvement, we will update our evaluation. But we do not update our evaluations on the basis of PR releases.

Why are some reports in Fast Facts format and other reports are Second Level or Third Level?

Our more comprehensive reports result when we have full access to the printer,

- When we can speak with the designer or integrator,
- When we know the tech support staff,
- When the manufacturer or distributor make their User Manuals and site preparation manuals readily available to us.
- We have been brought to their demo room and/or showroom with enough time to get to know the printer and staff.
- When we have been brought to visit the factory so we can testify that the printer is strong and robust.
- When we are guests in their trade show booth over the course of an entire trade show.

All these factors result in thorough coverage.

So far we have these advanced levels of access (to varying degrees) with

- ColorSpan 72uvx and uvr
- ColorSpan 9840
- Gandinnovations
- Luscher JetPrint
- Raster Printers
- Zund 215-C and -Plus
- Vutek 200/600

We also have, and appreciate, the cooperation of Durst, though do not yet have their User Manuals, nor have we visited their factory or demo/showrooms.

Access to a printer also depends on funding, since to visit the manufacturing facility of a Korean or Chinese company would require that the basic costs of airfare, hotel and meals to be covered. The same for a European manufacturer. Our university does not cover the costs of travel; indeed the College of Technology at BGSU specifically encourages sponsored research projects with manufacturers, since interaction with industry is a stated goal of the Center for Applied Technology and the state university administration.

We work hard to bring you information about UV-curable inkjet printers, and it definitely helps when documentation is readily available.



FLAAR Fast Facts & Comments on basic specifications

Durst Rho 350R *(First Issued 2005)*

Flora FUV2214 (2000-series) *(First Issued 2006)*

PIT *(First Issued 2005)*

Skyjet *(First Issued 2005)*

Teckwin 1800 *(First Issued 2005)*

First Look Evaluation & Scrutiny of specs, with comments on Pros and Cons (things no one else will warn you about).

Agfa Anapurna + Mutoh Cobra 100 *(First Issued 2005; most recently updated March 2006)*

Agfa :Anapurna M (see Dilli Titan) *(in preparation 2007)*

Anhui Liyu (Lytic), Eureka UV *(First Issued 2007)*

DuPont CromaPrint 18UV *(First Issued 2006; most recently updated May 2007)*

Durst Rho 205 *(First Issued 2004; most recently updated July 2005)*

Durst Rhopac *(First Issued 2005; most recently updated January 2006)*

Fuji Acuity (same as Oce 250) *(First issued May 2007)*

Inca Columbia Turbo *(First Issued 2005)*

Inca Spyder 150 (original model) *(First Issued 2004; most recently updated October 2005)*

Inca Spyder 320 *(update upcoming in October) (First Issued 2004; most recently updated June 2005)*

L&P Virtu *(First Issued 2004; update in preparation, June 2007)*

Oce Arizona 60UV *(First Issued 2004; most recently updated May 2005)*

Oce Arizona 250 GT *(First Issued 2007)*

Raster Daytona H700UV *(First Issued May 2008).*

Second Look Evaluation: learning what's behind the spec sheet

Nothing comparable to this information is available elsewhere. If you are thinking of buying any of these printers (or if you for any other reason need to know more about what they are really like, these FLAAR Reports are helpful.

Agfa Anapurna L and XL; Mutoh Cobra S64uv *(First Issued 2006. Most recently updated July 2007).*

Digirex (Yishan) *(First Issued 2003; most recently updated June 2005)*

Durst Rho 600 *(First Issued 2005; most recently updated January 2007)*

GRAPO Manta *(First Issued 2006; most recently updated September 2008).*

Infiniti *(First Issued 2005, most recently updated May 2007).*

Mimaki UJV-110 *(First Issued 2004)*

Mimaki UJF-605C *(First Issued 2004, most recently updated June 2007).*

Mimaki UJF-605R, RII, RH *(First October 2006, most recently updated June 2007).*

Mimaki IPF 1326 (JF-1631, JF-1610) *(First October 2006, most recently updated June 2007).*

Oce Arizona T220UV *(First Issued October 2005).*

Oce Arizona 250 GT *(First Issued April 2007. Most recent update May 2008. This report will be updated soon based on a visit to Oce factory in Canada).*

Teckwin Tecksmart 1600 UV *(First Issued 2005; most recently updated June 2008)*

Vutek PressVu UV 320 *(First Issued 2005)*

Vutek QS2000, QS3200 *(First Issued 2006; most recently updated October 2008).*

Zund 250 Combo *(updated twice 2007. First Issued 2006; most recently updated December 2006).*

Third Look Evaluation: Deeper into the printer

ColorSpan 72 UVR, 72UVX (First Issued 2005; most recently updated October 2006)
DuPont CromaPrint 22UV (First Issued 2005; most recently updated April 2006)
Eastech Scutum (First Issued 2004; most recently updated October 2005)
Flora LJII 1800 (First Issued 2004; most recently updated June 2005)
Gerber Solara UV2 (First Issued 2004; most recently updated December 2005)
GCC StellarJet 250 (First Issued 2004; most recently updated June 2005)
GO Fuzion UV (First Issued 2005; most recently updated February 2006)
Lüscher Jet Print (First Issued 2005; most recently updated May 2006)
Neolt 1800, 2050, 2500, 3200 (First Issued 2005)
NUR Tempo and Tempo II (First Issued 2006)
Vutek PressVu UV 200/600 (First Issued 2004; most recently updated December 2005)
Zund 215-C, 215-Plus (First Issued 2004)

Demo Room: Personal experience with the Printer & Evaluation

ColorSpan 9840uv, now HP Scitex FB910 (First Issued 2006; most recently updated May 2008)
ColorSpan 5440uv series, now HP Designjet H35000 (First Issued February 2007; most recently updated March 2008)
Dilli Neo Titan (First Issued August 2007. Updated February 2008)
Dilli Neo Venus (First Issued January 2008. Most recently updated February 2008)
Dilli Neo Plus (Most recently updated February 2008)
Durst Rho 351R (First Issued March 2008)
Durst Rho 800 (First Issued March 2008)
Gandinnovations JETI flatbed (First Issued 2005)
Gandinnovations JETI 1224 UV (The original report was first issued in 2004, since then it became two separate reports —the 3150 and 1224 reports—. The individual 1224 was issued September 2008 and updated October 2008 after SGIA).
Gandinnovations JETI 3348 RtR JetSpeed (First Issued August 2008. Most recently updated October 2008 after SGIA).
Gerber ion* (First Issued November 2007; Most recently updated December 2008)
GCC Stellar Jet 183uv (Most recently updated January 2008)
GCC StellarJet 250 (Most recently updated January 2008)
GRAPO Octopus, bedigital domino, Colormy (First Issued June 2005; Most recently updated December 2008).
IP&I CUBE 260 (New April 2006. First Look. Updated for November 2007 based on factory visit and inspecting this printer at two printshops).
IP&I 1606 (First issued mid-2007).
NUR Tempo Q Now HP Scitex FB6100 (First issued 2006, Most recently updated December 2008).
NUR Expedio 3200. Now HP Scitex XP2100 and XP2700 (First Issued November 2007).
NUR Expedio 5000. Now HP Scitex XP5100 and XP5300 (First Issued November 2007. Recently updated 2008).
Raster Printers RP-720Z (First Issued 2005; most recently updated October 2006).
Raster Printers Daytona T600UV (First Issued March 2007; Most recently updated September 2008).
Teckwin TeckStorm (First Issued July 2008. Updated several times during 2008 based on two visits to Teckwin factory).
Zund 250 (First Issued November 2004. Most recently updated July 2007 after two days at Zund factory)

Site Visit Case Study

ColorSpan 72UVR (site-visit case study) *(First Issued 2005; most recently updated December 2006)**
ColorSpan 72UVX, site-visit case study in progress of the -X version flatbed. *(First Issued 2005)*
DuPont Cromaprint 22uv *(First Issued 2005; most recently updated February 2007)*
Durst Rho 160 *(First Issued 2005 *)*
L&P Virtu *(report already exists, update is upcoming)*
Gandinnovations Jeti roll-to-roll UV printer *(First Issued 2006; most recently updated February 2007)*
Gandinnivations Jeti flatbed UV printer (two separate site-visit case studies) *(First Issued 2006)*
Infiniti UV *(First Issued 2006)*
Infiniti UV *(First Issued 2006; most recently updated February 2007)*
Lüscher (April 2006). *(First Issued 2006; most recently updated February 2007)*
Luscher (second, additional site-visit) *(First Issued 2006)*
Vutek PressVu 200/600 *(First Issued 2006)*
Vutek PressVu 200/600 (a second site-visit) *(First Issued 2006)*
Zund 215-C (4 color model) *(First Issued 2005; most recently updated May 2007)*
Zund 215-Plus (6 color model) *(First Issued 2007)*

Where possible the site visit is separate from, and in addition to, the evaluation review. So for the Zund 215, the Gandy printer, the Luscher JetPrint, Vutek 200/600 and for the ColorSpan printers, there are two reports on each.

Any time there is an update within three months of when you purchased the FLAAR Reports, whereby the price remains the same after the update, you can request the update at no additional cost if you write us at customersupport@flaar.org.

However if there has been a price increase, this means that the new report is substantially updated, edited, and revised, and the new price is what holds. We are going to see if we can add a system whereby you can order the update by only paying the difference in price plus the cost of our administering the update (a lot of this we have to do manually; it may appear automatic to you, but it takes a lot of programming and work behind the scenes to make it happen at all).

There is no system to automatically send updates (this would be so expensive we would have to raise the prices; we prefer to keep the prices down).

Consulting Services

1 419 823 9218 is also the FAX number to use if you wish consulting. If you wish consulting, please indicate that printer(s) you already have; what printer(s) you are considering purchasing; what your applications are; and a general list of questions you wish to ask. Consulting is for basic UV-cured ink printers. If you need consulting or personal training for your staff on color management or workflow solutions, FLAAR and BGSU do provide color management training.

We also provide consulting for giclee and décor production, scanning, and digital photography. But these are separate consulting matters. However for general basic questions on color management, giclee and décor, and fine art photography, we are glad to include these within the free consulting if you have purchased the entire set of all the first five UV series (Series 1 through 5).

What to expect

Our style is informal, notes from our notebook as we are writing down details. So don't expect pedantic formality. We don't always write complete sentences (we have over 73 of these reports and there aren't enough hours in the day and night and weekend to spend with endless editing). Our notes are more information than is available at the trade shows, and our basic information, albeit not the Queen's English, at least offers more than is available elsewhere. If we use slang or jargon, that is because computers are called "Macs" not "Macintosh."

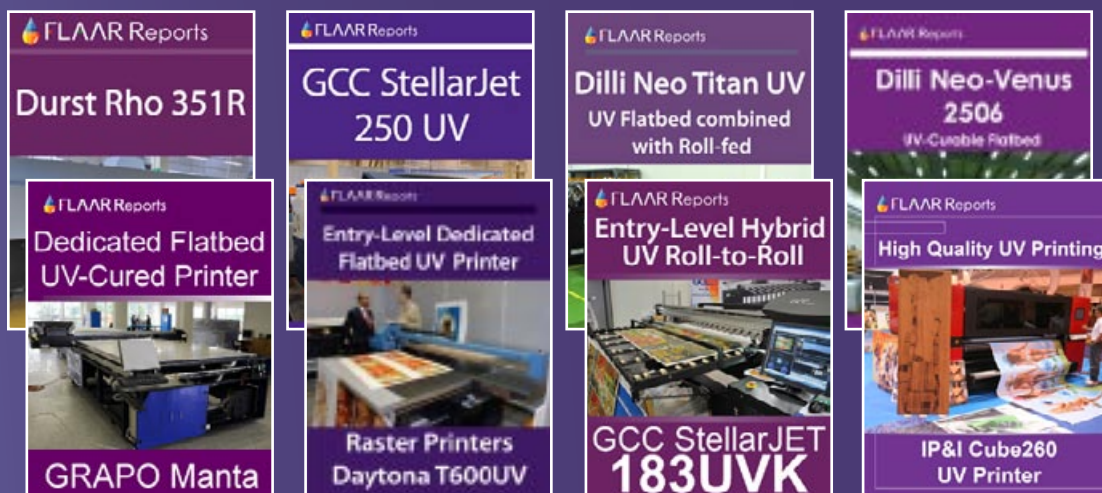
The going rate for a Technical Editor in Ohio is about \$54,000 a year, so if we edit all our reports we would have to raise our current prices up to a commercial level. We prefer to keep the prices down to what you expect from a non-profit educational institute.

We often have to surmise, to use our best estimate, since many aspects of a printer are kept well hidden. So don't be upset to see the words surmise and "we estimate that..." And yes, we often have to guess. Again, if the information were available (or funding) then we could be more precise. We can't help but notice there is virtually no viable information resources elsewhere. So clearly we are not the only people who find it difficult to learn about UV-cured inkjet printers.

Some aspects in an evaluation require serious lab testing. If you need this type of information, in some cases we can do the testing, but such projects are expensive. So don't expect that we can wave a magic wand and have an entire team measure the effects of some aspect of an ink. You would not want to pay the increased price that we would have to charge for our reports. For some brands, about all that is available are the PR releases, clothed as Success Stories; or infomercials clothed as reviews. Since we are a university institute, neither of those formulas is appropriate.

We report what we are able to learn and do our best to update reports. It is worth pointing out that no other university has even tried to write evaluations of digital imaging equipment. Most other attempts to comment on digital equipment or software are done by commercial companies which get click-through fees or advertising income. And no one else makes the effort to review RIP software, for example (because there is no money in such evaluations).

Thus our institute appreciates it when you recognize the conditions under which we work, and that indeed we do work hard to provide information on UV-curable inkjet printers.



Sample FLAAR Reports are free
(download them by just clicking on them)

These are all comprehensive reports based on factory inspections and scrutinizing these printers for hour after hour (sometimes for several days) in the demo rooms.

These are not First Look and are not Fast Facts: the free samples are full-length reports to reveal what is available when we have access to the key people in the company to interview them, and when we have unfettered access to the demo room.

Obviously some companies prefer that we not get anywhere near their demo room and definitely would prefer that we not test their machines. But since there are 101 models from 45 manufacturers, we have plenty to do with those printers with unrestricted access.

You can obtain these and more reports at
www.wide-format-printers.net

**Preview of Lectures by
Dr Nicholas Hellmuth**

**Series #11: Training, Seminars,
Lecture Programs**

FLAAR wants to be sure that we provide services for our readers around the world. This is the goal of a non-profit research and educational institute. We do this through the FLAAR Reports, seminars, and consulting.

You can have Dr Nicholas Hellmuth come to your home town, anywhere in the world, and either assist you as a consultant, or provide a lecture or seminar.

Lectures are available:

- At a trade show
- At an Open House
- At a local museum or university
- At a local association or organization
- Sponsored by a trade magazine
- At your company for your own staff and your own invited guests

Nicholas has lectured on UV-curable printers in Ljubljana, Zagreb, Athens, Dubai, Istanbul, FESPA Mexico City, Seoul, GraphExpo Chicago, Cincinnati, FESPA Amsterdam, Novosibirsk (Siberia, Russia) and elsewhere around the world.

Nicholas also lectures on advanced digital photography (large format and medium format), occasionally speaks on color management, and on rare occasions lectures on 3D scanning and 3D rapid prototyping.

To arrange any of these topics in your home city, anywhere in the world, simply e-mail FrontDesk@FLAAR.org. If no answer telephone 1 419 823-9218. As a backup, our land-line number in St Louis is 1 314 453-9199. Skype address is flaar_mes-america

Cost is round trip economy airfare, hotel, local transportation, meals, and a standard lecture fee listed in the FLAAR brochure on lecture availability.

The following reports document only some of the events Dr. Hellmuth has been invited to.

UV Workshop in Athens.

This UV-Workshop concept of using UV printers to build a complete structure was implemented by Materia Grigia. They have prior experience organizing trade shows, educational events, and workshops. Materia Grigia, personified by Kostantina & Maurizio Tumidei, provide coverage of visual communications for Greece, the growing economies of the adjacent Balkan region, and also for Italy. FLAAR comes from a university background, where teaching, including conferences, seminars, and workshops is part of our tradition.

First Issued February 2007.

UV Seminar 2007 Cincinnati

The show was organized by the staff of Resource Imaging Supply and Queen City (two related companies sharing the same building). Several key tech support and sales management people from MacDermid ColorSpan were also on hand to give live demonstrations.

First Issued February 2007.



UV Seminar 2007 Korea

JaeHyun Tech Co., Ltd and Digital Printing Magazine sponsored an educational seminar on UV flatbed printers at COEX, Seoul, Korea. Dr Nicholas Hellmuth, FLAAR, provided six informative hours on UV-curing printing applications.

First Issued March 2007.

UV Seminars in Cincinnati and Korea

First Issued March 2007.

UV Seminars in Cincinnati, Korea and Athens

First Issued March 2007.

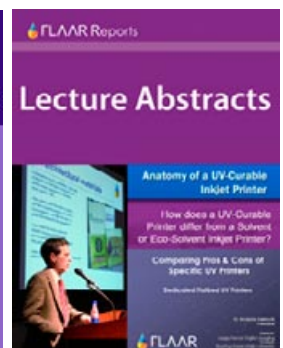
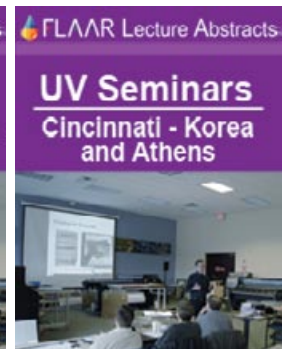
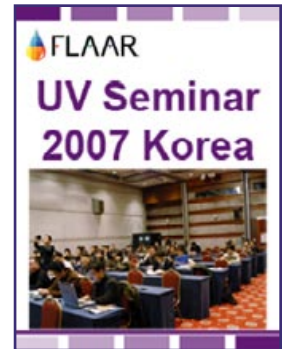
What attendees say about FLAAR Lectures

First Issued March 2007.

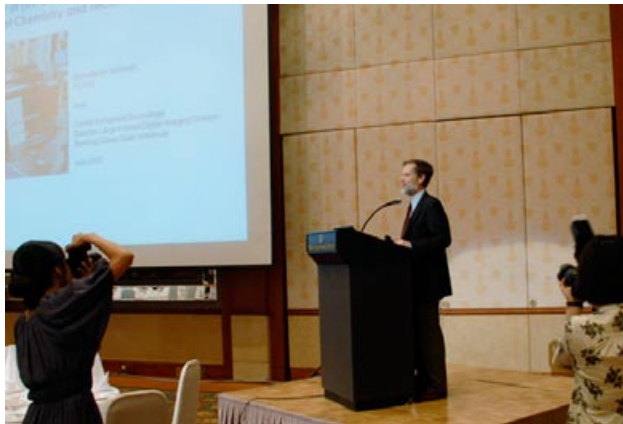
Lecture Abstracts

This lecture is about how to improve input for Digital Printing, how to determine the right UV Flatbed printers for your needs, and more...

First Issued June 2006.



Nicholas Hellmuth lecturing at Sign Africa 2008 trade show.



Lecture in Korea, IP&I event, 2007.



Lecturing in SIGN Digital, Istanbul 2006.



Dissertation at Mimaki Open House, Amsterdam 2006.



FLAAR was invited to the event organized by Resource Imaging Supply and Queen City, Cincinnati 2006.



Conference at Canon event, Slovenia 2007.



Dr. Hellmuth interacting with attendees after the lecture at SUN event, Russia 2007.

**Preview of Reports by
Dr Nicholas Hellmuth**

Series #12: Special Category For Printshop Owners, Managers & Printer Operators

This Special Series includes consulting with Dr. Hellmuth. Depending on the package you purchase you can:

- Meet Dr. Hellmuth at any tradeshow and have 20 minutes of consulting walk through
- Have 1/2 down payment for consulting
- Have 20 minutes of phone consultation



One of the many advantages to contact Dr. Hellmuth for consultation services at trade shows is that he can get you to talk to key industry people. Here, Dr. Nicholas and Paul Clark from SFC Graphics touring at SGIA 07 where they got to talk with Rak Kumar, President of Raster Printers (third photo from the left).

To Start With...

Past, Present & Future UV Printers (for 2000-2008)

FLAAR Fast Facts on UV Printers.

This list could be considered a "what to expect in new UV printers for 2007" simultaneously with listing all the dead, stillborn, withdrawn, cancelled, and moribund UV printers. This FLAAR Report gives the model designations and status of all known UV printer machines worldwide.

Updated October 2006. Most recently updated October 2008.

Classification of more than 60 UV-Curable Inkjet Printers

Because there are more than 60 models of UV-curable printers by more than 30 manufacturers, end-users are faced with insurmountable obstacles in trying to figure out the difference between any two models. Over and over again print shops send us e-mails asking for our help in deciding which make and model they should purchase.

First issued May 2006. Updated June 2006, February 2007, May 2007, July 2007, November 2007, April 2008. Most recently updated September 2008.



Next Step...

Learning Terms & Jargon on UV-Flatbed Printers

A UV-curable inkjet printer is not cheap. So we thought it would be a good investment to help people understand the jargon in the advertising and printer specs if FLAAR offered a glossary. So here it is. We hope it helps you understand both the terms, benefits and occasional issues, with UV-curable inkjet technology.

First issued 2003. Updated February 2004; updated April 2004; updated June 2004, updated December 2004, updated May 2005, October 2005, November 2005, June 2006, February 2007, June 2007. Most recently updated May 2008.

Bibliography of UV-Curable Inkjet Inks and Printers.

A bibliography is something a university professor does well.

First issued February 2004. Updated October 2005. Updated again June 2006. Updated March 2007.

Introduction to UV-Cured inks

FLAAR Fast Facts, so not a long dissertation, but instead a basic annotated list of all the companies that make UV-curable ink for flatbed printers, including a list of sources on after-market inks, plus a note on FLAAR+BGSU university labs program of evaluating new sources of UV-curable inks. This report has been in constant updating as we learn more about cationic ink.

First issued October 2005. Updated June 2006; During this update we added the first chart of ink costs. Updated March 2007, October 2007, November 2007, January 2008, April 2008, June 2008, July 2008, August 2008, September 2008, October 2008. The most recently update was made in November 2008 after SGIA, where we gathered information to add a new and more complete ink price chart.

How does a UV-Curable Printer differ from a Solvent or Eco-Solvent Inkjet Printer?

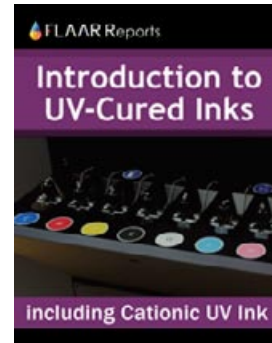
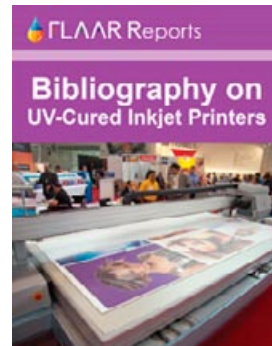
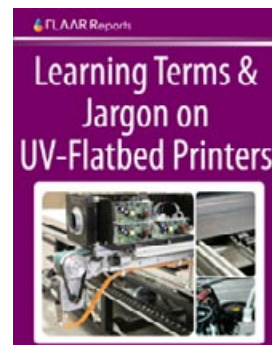
Since many people who wish to obtain a UV printer already have or know about solvent printers, we have produced this handy little report to provide a basic introduction to the similarities, and differences, in each class of inkjet printer.

Updated December 2005, October 2006 and updated again for January 2007.

How a UV-Curable Inkjet Flatbed Works: Anatomy of a UV-Curable Ink Printer

This is a FLAAR Fast Facts, so we won't overburden you with technical detail. Fast Facts are precisely that, a precis of useful information in an easy to understand format.

Updated December 2005. Being updated for October 2006.



Crucial because no sales rep will show you these...

Printheads for UV Printers

Why are people switching from Xaar and Spectra to Konica Minolta, Seiko and Toshiba Tec heads? Quick primer lists every brand of printhead out there. So any UV-cured ink flatbed that you are thinking about, now you know which printheads to look for.

FLAAR Fast Facts

Updated December 2005, October 2006 and updated also for January 2007.

Most recently updated April 2008.

Learning about UV-Lamps & UV-Curing for Understanding Flatbed Inkjet Printers

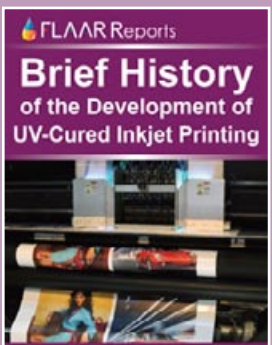
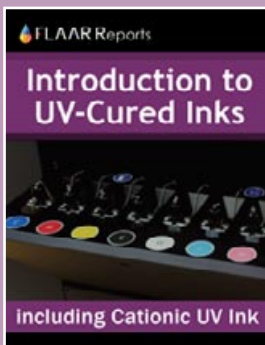
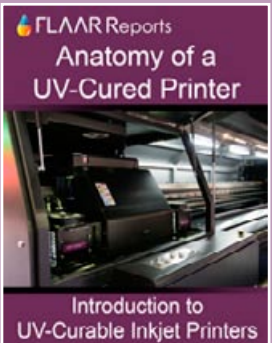
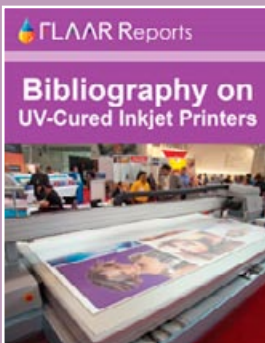
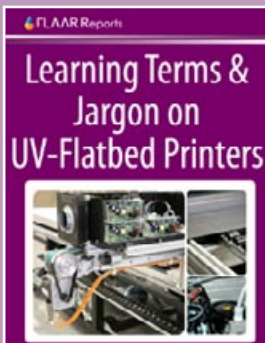
New, December 2005. Updated for February 2006. Being updated for October 2006 and again in October 2006. Updated January, April and again September 2007 based on a week with Sun LLC, a successful integrator of LED lamps for UV curing. Updated March and again in May 2008. Updated again September 2008. Most recently updated November 2008.

Most recently updated January 2010.

Previously updated February 2006, April 2006, June 2006, August 2006, December 2006, February 2007, March 2007, May 2007, September 2007, March 2008, November 2008, January 2008, February 2009.



Series 1: Introduction to UV-Cured Inkjet Printers.

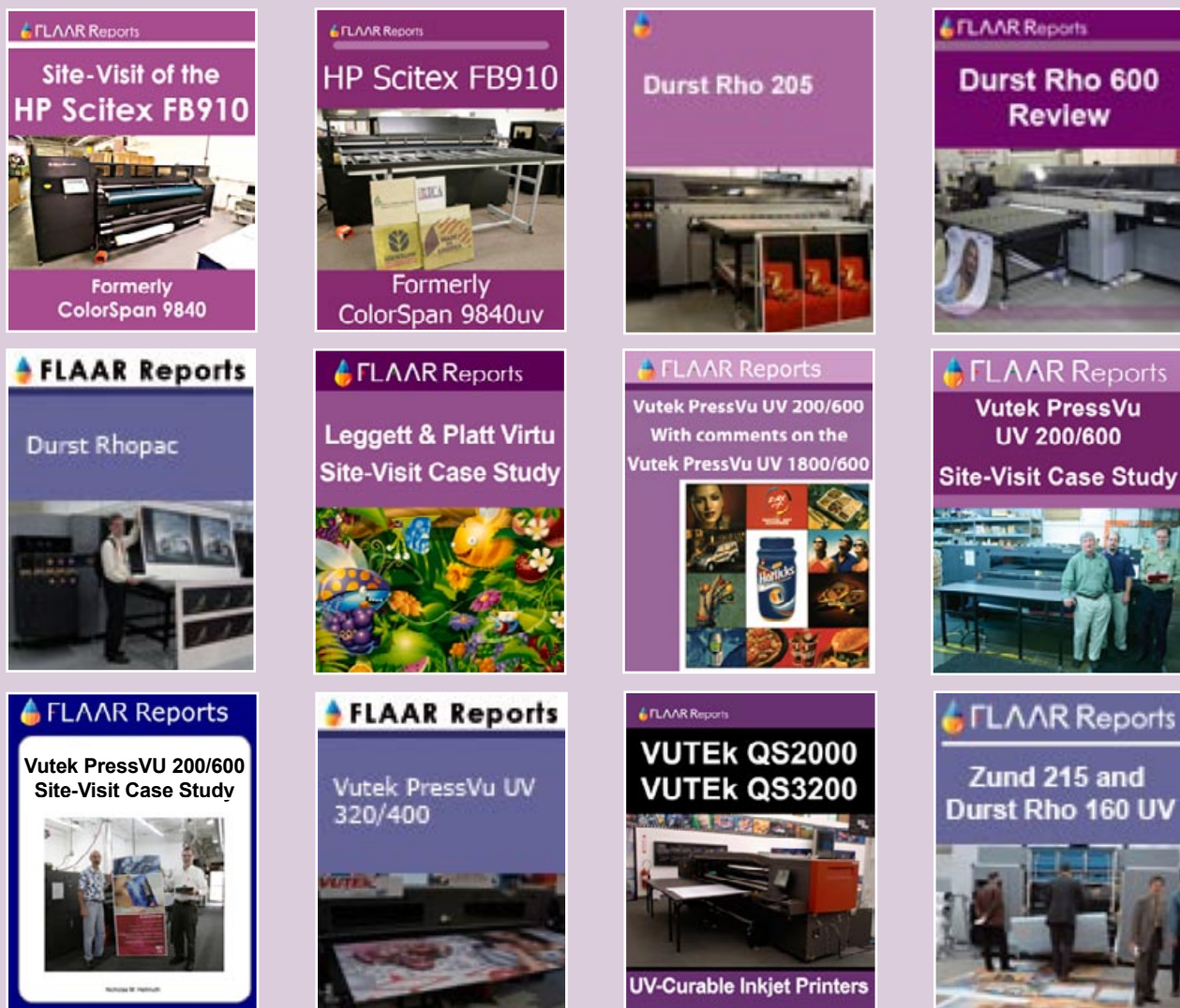


Series 2: Introduction to UV-Cured Inkjet Printers.



Series 3: UV Printers Model by Model

Combo UV: Serious Production.



Series 3: UV Printers Model by Model (Continued)

Combo UV: Mid Range.

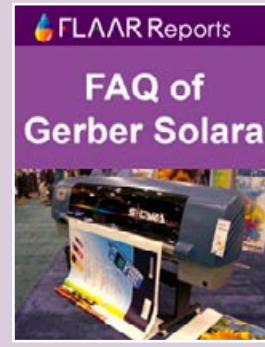
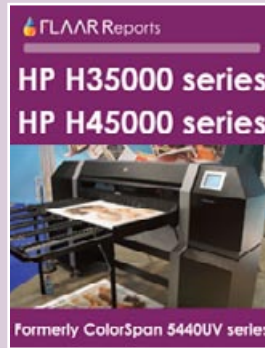


Combo UV: Unusual Design.



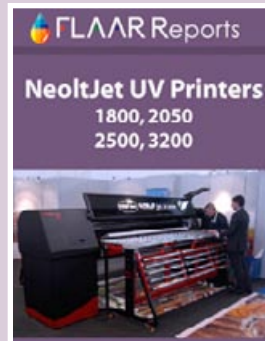
Series 3: UV Printers Model by Model (Continued)

Hybrid UV: Entry Level.



Series 3: UV Printers Model by Model (Continued)

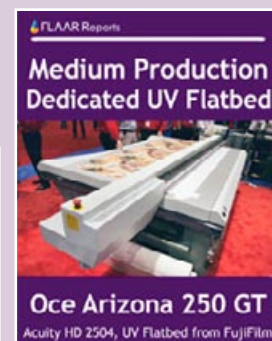
Hybrid UV: Mid Range.



Flatbed UV: High End.

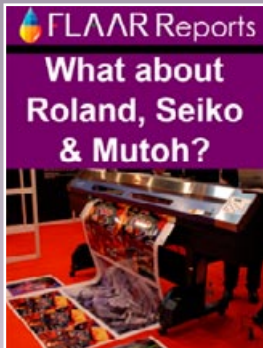


Flatbed UV: Medium Production.



Series 3: UV Printers Model by Model (Continued)

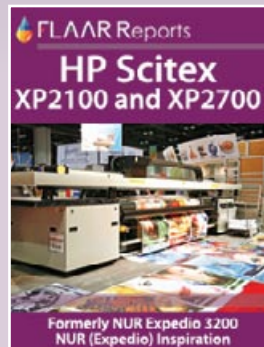
Flatbed UV: Specialty.



Flatbed UV: Entry Level.



Roll-to-Roll: High End.



Roll-to-Roll: Specialty.



Led UV Curing, Cationic Ink.



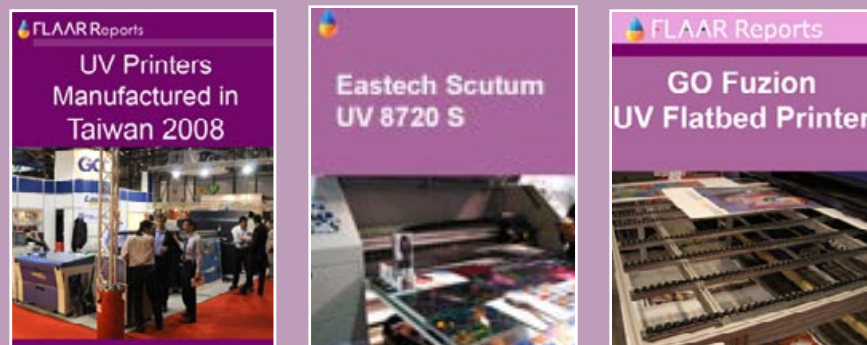
Series 4: Site Visit Case Studies



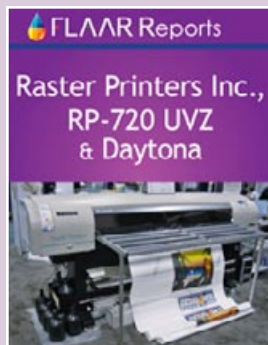
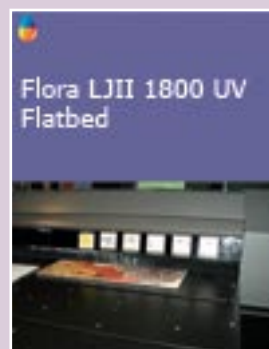
Series 5: UV Printers: Korea



Series 6: UV Printers: Taiwan



Series 7: UV Printers: China



Series 8: Comments on UV Inkjet Printers at Major Trade Shows

Trade Shows 2009



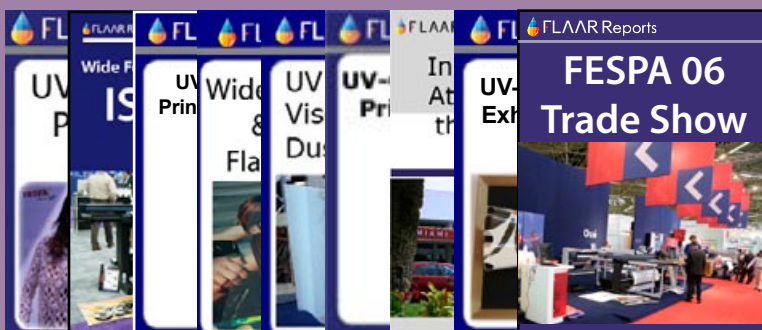
Trade Shows 2008



Trade Shows 2007



Trade Shows 2005-2006



Series 9: UV-Curable Inkjet Market Analysis & Trends



Series 10: Consulting and Analysis

Consulting Services
for Manufacturers



FLAAR Educational Programs & Services
Consulting Services
for Giclee



FLAAR Reports
UV-Curable Inkjet
Printer Analysis



Coming Soon

Series 11: Training, Seminars, Lecture Programs

FLAAR Reports
Lecture Abstracts



FLAAR
UV Seminar
2007 Korea



FLAAR Lecture Abstracts
UV Seminars
Cincinnati and Korea



FLAAR Lecture Abstracts
UV Seminars
Cincinnati - Korea
and Athens



FLAAR Reports
What Attendees say
about FLAAR Lectures



FLAAR Lecture Abstracts
UV-curable Flatbed
Inkjet Printer Workshop
ATHENS 2007



Series 12: Special Series for printshop owners, managers & printer operators

FLAAR Reports
Classification
of more than
60 UV-Curable
Inkjet Printers



FLAAR Reports
Past, Present & Future
UV Printers
(for 2000-2008)



FLAAR Reports
Learning Terms &
Jargon on
UV-Flatbed Printers



FLAAR Reports
Bibliography on
UV-Cured Inkjet Printers



FLAAR Reports
Introduction to
UV-Cured Inks



FLAAR Reports
How does a UV Printer
differ from a Solvent
or Eco-Solvent Printer



FLAAR Reports
Anatomy of a
UV-Cured Printer



FLAAR Reports
Piezo Printheads
Used in UV-Cured
Inkjet Printers



FLAAR Reports
UV Lamps
for flatbed Inkjet Printers



FLAAR Reports
Ionic UV Ink