

Single-Pass (fixed array) in-line Inkjet Printers for Ceramics



Introduction to the leading expo:

Tecnargilla 2012

RIMINI

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September 2012

Introduction to TECNARGILLA 2012

Many people in the ceramics industry say that TECNARGILLA is the “drupa” of ceramics manufacturing and decoration. Since I attended Ceramics China in Guangzhou in late Spring 2012, I felt it would be helpful to readers of the FLAAR Reports to provide more assistance on printing on ceramics.

My interest in decorating ceramics comes from four sources:

- Lots of companies ask FLAAR for assistance on how to print on ceramics.
- My Hellmuth family background is architects and hence architectural decoration
- My archaeological background is in Maya ceramics of a thousand years ago
- Digital printing on ceramics is the fastest growing industrial application in the inkjet world (especially for tons of ink and thousands of printheads being sold).

The expo was 24-28 September 2012. We attended 25 and 26 September since I had to fly to Reklama Moscow.



Rimini Fiera convention center

Most impressive presentation: “light and sound show” projected onto the façade of the cretaprint machine. This was a 3D video projection using the entire front of the cretaprint machine as a screen.

Most impressive print handling and management concept: SiTi

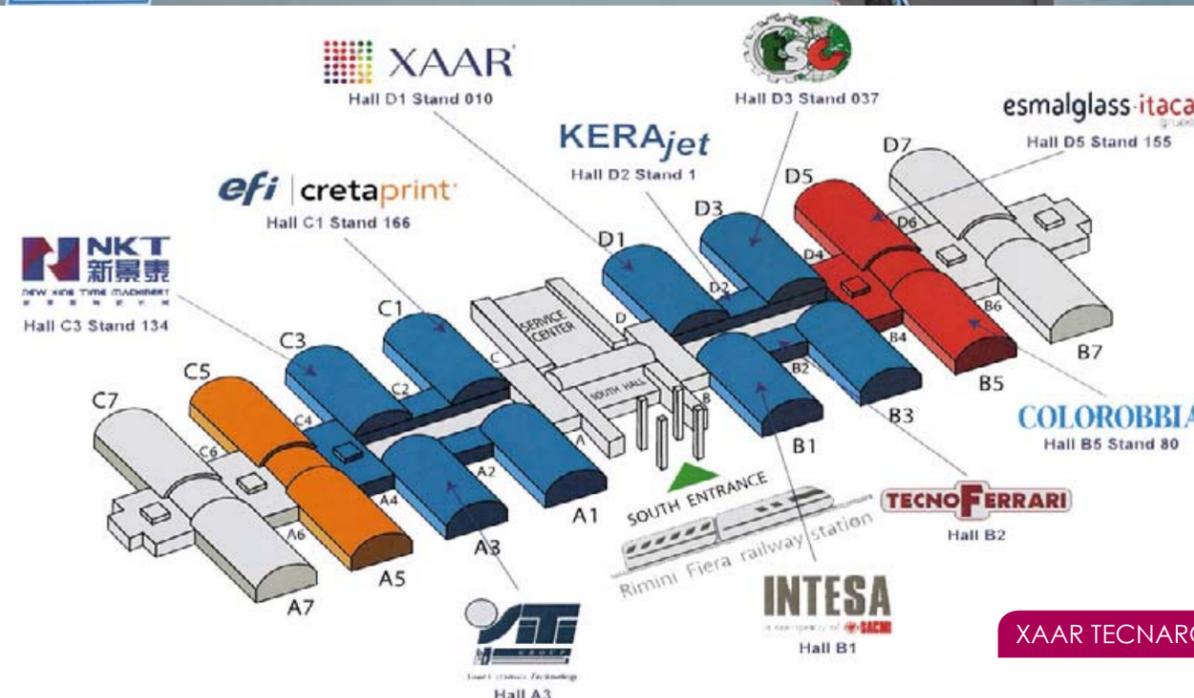
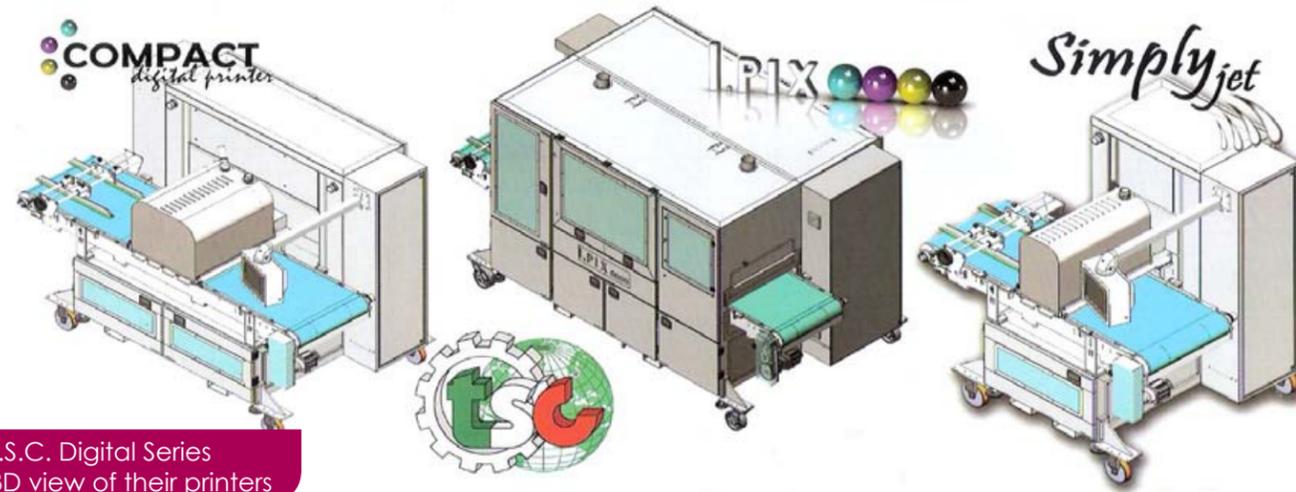
Most innovative print samples: SiTi booth: 2D relief with a powder.

Widest range of printable material: “water-based or resin-based ink” in booth of SERTILE was printing on glass, ceramic, and ceramic material.

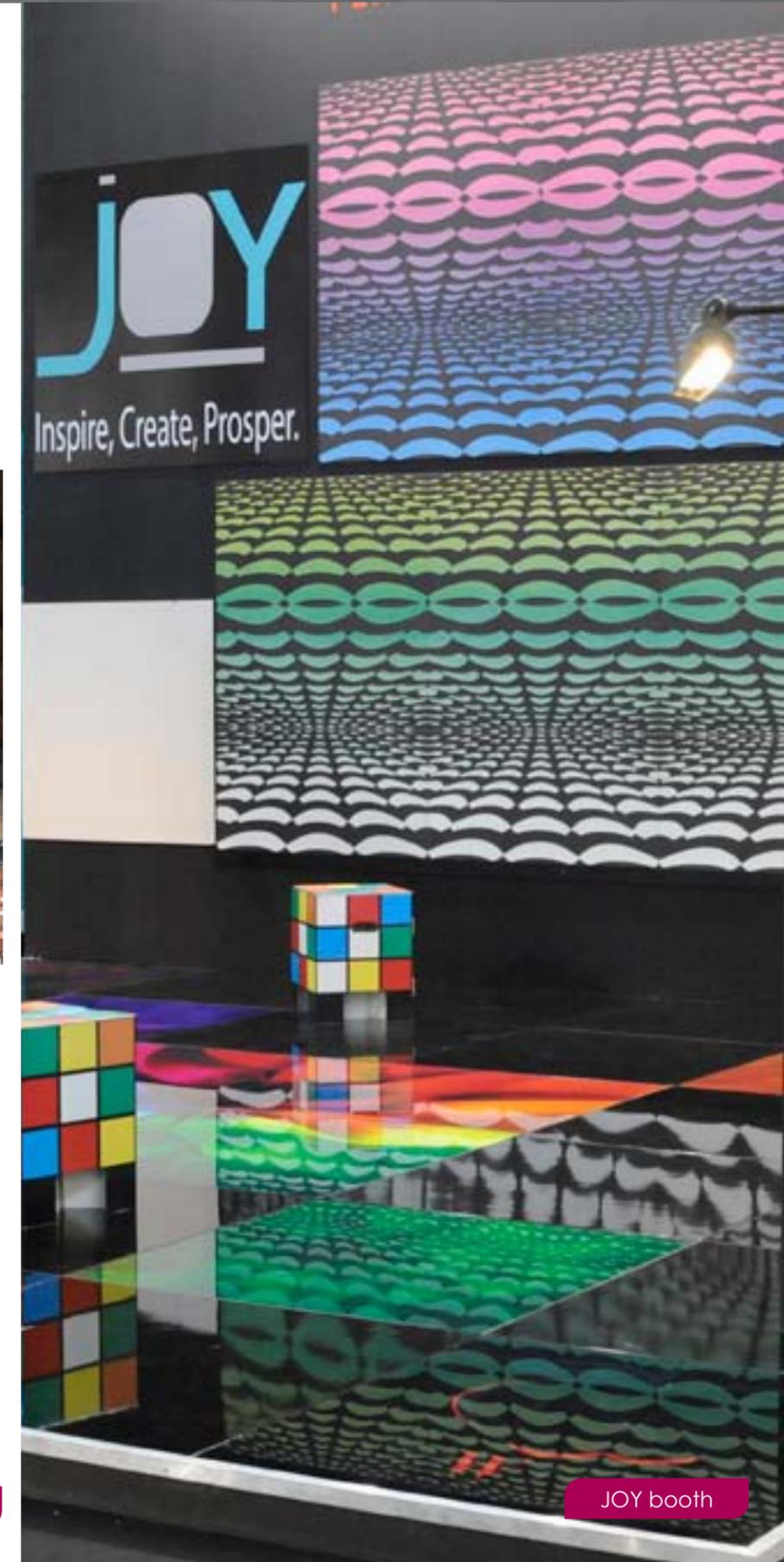
Most clever booth design: cretaprint “open weave wall” For most expos we have a separate report on booth design (since our background is architecture). We tend to show the best booth design and the worst booth design.

Most helpful handout in a booth: Xaar’s map of the entire expo center, all on one single sheet of paper, showing every booth where a printer used their printheads. It sure would have helped if other printhead manufacturers had a comparable map, but perhaps Xaar had more printers to show than other brands?

Another helpful handout in a booth: T.S.C.’s “Digital Series” map which shows, in a 3-dimensional view, the entire printer, of each model in their booth. This drawing was an immense help for me trying to keep track of what printers are in which booths. Any printer manufacturer who has more than one printer in their booth should hand out a letter-sized like the one of T.S.C.



XAAR TECNARGILLA map





EFI cretaprint C3

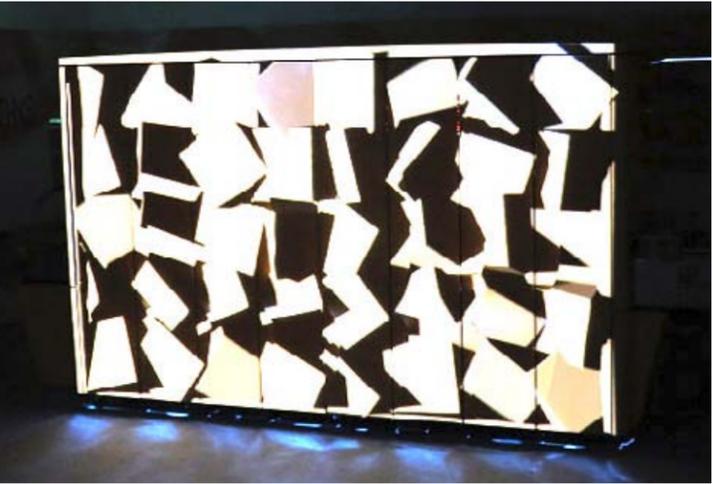


Most clever booth design, cretaprint "open weave wall".



EFI cretaprint open weave wall

Most impressive presentation, Light and sound show at EFI cretaprint booth.





System Wind Powder dry printing sample

Honorable Mention
The System printers allow you to mix and match almost any part of the ceramic decoration process all within one continuous in-line machine.



System booth, DIVERSA



AIRPOWER booth



CerArte Magazine

- I roughly estimate that over 75% of the exhibitors at TECNARGILLA were
- Clay and ceramics materials mining and material distribution companies.
 - Equipment to manufacturer ceramic tiles, floor and wall and roofing
 - Kilns and every other aspect of manufacturing workflow
 - Equipment to manufacture bathroom and kitchen ceramics
 - Many trade magazines in the ceramics industry
 - Booths of a few other ceramics expo organizers

What kind of companies exhibit at TECNARGILLA?

- Companies who make in-line single-pass inkjet printers for ceramic tiles. Our separate TRENDS report lists every single printer company; provides comparative spec sheets; compares who exhibited here compared with who exhibited at Ceramics China 2012.
- Digital ink companies, who make ceramic frit ink. There is a separate FLAAR Report listing the main ink companies, both those who exhibit and those who did not but which produce ink for digital printing on ceramic tiles.
- Manufacturers of glaze and all the other chemicals used to decorate ceramics. Now, in 2012, increasingly you can also jet glaze onto ceramics with inkjet printheads. So here is another growing market application.
- Printer manufacturers: who make screen printers, cylinder printers, and have been starting to make ceramic printers since circa 2007-2008. We do not cover older non-digital printing technologies. But we are obviously aware of them.



TECNO ITALIA booth Digital Glaze



TorreCid Sample



What is the difference between a ceramics manufacturer and a ceramic printer manufacturer?

Since I come from the world of wide-format inkjet printers, I have fifteen years experience with printheads, inks, printers, cutters, RIP software, color management, and the entire workflow. But when you enter the world of printers for ceramics, lots of things are totally unexpected: you have companies who make ceramic kilns and ceramic manufacturing equipment all of a sudden making inkjet printers.

Plus you have a few companies who have no background in ceramic manufacturing equipment, but who know wide-format printers for over a decade, moving into the world of ceramic in-line printing. Durst is the most successful example of this.

Now you have every single solitary Chinese signage printer manufacturer all of a sudden wanting to make a "ceramics printer." Plus you have all the Chinese ceramic factory tile manufacturing equipment companies also wanting to make printers for ceramics. So each industry knows half of the needed knowledge: a ceramic factory lacks experience in inkjet; a signage printer lacks experience in ceramics. All this is another chapter of what we discuss in the TRENDS report.

Who was totally absent at TECNARGILLA 2012

In our TRENDS report we indicate which printer manufacturer was absent from TECNARGILLA 2012. Plus we discuss the absence of Chinese printer manufacturers (and indicate which two were present at TECNARGILLA, but had no printer in their booth).

We also ask, and answer, the question, why did not Chinese printer manufacturer have a printer at the expo?

Proofers for ceramic tiles tend to be called plotters

Cretaprint calls their proofer a plotter. I heard comparable technology elsewhere at the expo also being called a plotter. HP still calls their wide-format inkjet printers a plotter and they are not even in the ceramics industry.

The correct word is not really plotter, especially not to print interior decoration. But plotter is clearly the jargon used in the ceramics industry.

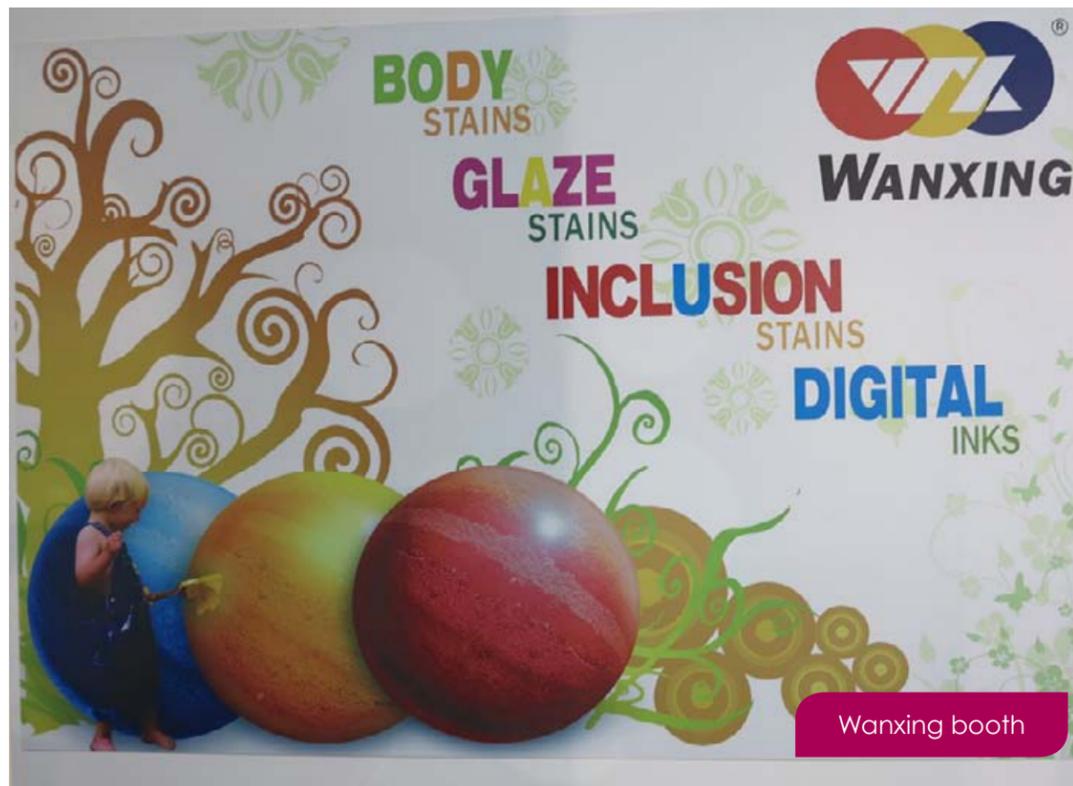
In the TRENDS for TECNARGILLA we discuss the difference between proofers (plotters) and in-line printers.



EFI cretaprint booth



Wanxing ink samples



Wanxing booth

Ceramic ink at TECNARGILLA 2012

We have a separate report on ceramic ink, available by Subscription. This report on ceramic ink is intended for companies who make other kinds of inkjet ink and are tempted to enter the market for a ceramic ink. However our tradition is no bar charts, no pie charts: statistical information is already available in other industry resources. Our goal is to get you started so you know where to begin looking.

You can write FrontDesk "at" FLAAR.org to ask for an invoice. Much of this report is delivered verbally by telephone or Skype so that we can best understand the information you seek.

Cruse booth

Reprographic scanner for ceramics

When I attend an expo I try to walk every aisle, since I have learned that I often will find a company that I was not expecting. Along a back aisle in Hall D5 I was pleasantly surprised to find the nice folks from CRUSE (reprographic scanner company). They exhibited a model for scanning ceramic tiles.

Actually I would expect that ceramics companies would more likely buy a larger scanner for scanning stone and wood, to use these scans as models for reproducing on ceramics.

For many years Cruse kindly loaned one of their close to \$90,000 scanners to the FLAAR research facilities at Bowling Green State University. A few years later they added another significant set of additional options. We tested and evaluated this technology for over four years.

Now, since it is too time-consuming to put up with university internal politics, and since if you are dealing with the real world of industry (the wide-format printing industry), being at a university is too constrictive: decisions are stuck in faculty committees who are not familiar with the industry reality, and decisions are made for reasons not always related to the real world outside the campus. So we gradually moved our staff and offices off campus and returned to being independent (as we were in the 1990's through 2001 when we moved on-campus).

The disadvantage of being off campus is lack of space to have a large reprographic scanner such as a Cruse. But we now have a museum in Guatemala with space to return to evaluating scanners, especially the one which can acquire information on surface texture. But since we have no more reprographic scanner from Cruse we evaluate all the cameras and tripods and lighting equipment which are available.

What will the exhibitor list be like for TECNARGILLA 2014?

Ceramics China is every two years, so the next one will be in 2014. The exhibitor list for TECNARGILLA 2014 we discuss in the TRENDS. Between 2012 and 2014 will be a very busy year for printhead manufacturers trying to catch up to the ceramics industry printhead leader, and for ink companies who will begin to enter this market, and for Chinese manufacturers to figure out how to compete with the well established Italian and Spanish printer manufacturers. In past years there were probably more European printers sold to Chinese ceramics companies than Chinese ceramics printers sold in Italy or Spain.

How long will this ratio be sustainable, for either side? This is why we call our FLAAR Reports series TRENDS. There are trends underway, especially in a two year period.

What will FLAAR Reports be interested in writing on at Rimini in 2014?

Glaze, especially with metallic effects, is one of many interests of mine. I noticed several new products in this field at Rimini 2012 (which I show photos of in the separate TECNARGILLA ink report from FLAAR).

We will also cover printhead preferences, ink brands, color management in the world of ceramics, and of course all the printers themselves.



Ceramics China 2014 banner

Acknowledgements

At Ceramics China the Fujifilm Dimatix team were hospitable and we appreciate them helping my assistant there, to learn more about printheads.

Also at Ceramics China, all the folks in the Xaar booth provided hospitality and knowledge. We thank them for assisting Alejandra to understand more about printheads.

At TECNARGILLA my assistant and I divided the expo halls so we could each take notes on the booths in that half. So we were rarely together for her to visit with the printhead booths. But I had two meetings at the Xaar booth and an informative meeting with Howard Baldwin of Dimatix Spectra in the System booth.



Nicholas Hellmuth with Mark Alexander, Director of Marketing, XAAR plc, at XAAR booth.

We meet many people at this expo but do not have business cards of all of them (such as the nice folks at Cruse, who I know well so don't ask for their business card at each expo). Plus two people we met we are under NDA on our research project (it is on a subject totally different than ceramic inks or ceramic printing; we study many other kinds of inks).

Plus our primary interest was taking notes rather than merely collecting business cards, so below is thus only a fraction of the people we spoke with.

- Mark Alexander, Director of Marketing, Xaar plc
- Simona Armichiari, Marketing & Comunicazione, Sifi - B&T Group S.p.A.
- Howard Baldwin, Fujifilm Dimatix (Spectra)
- Leopoldo Camposeco, Sales Manager, Durst Image Technology Latin America
- Rafael Carbonell, Director General, Durst Image Technology Iberica, S.A.
- Paolo Casarini, Project Manager, System S.p.A.
- Ruth Clark, Managing Director, Splash (Xaar booth)
- Matteo Coppelli, Sertile
- Michele Demattio, Sales Area Manager, Gruppo Tecnoferari S.p.A.
- Ghilad Dziesietnik, Chief Technology Officer & Business Development, efi
- Jose Garcia, FAS Business Manager NEA, Ferro Performance Materials Co.
- Marco Ferrari, Product Manager digital decoration, Sifi - B&T Group S.p.A.
- Esteban Guillén, Proyectos Estrategicos, industria Inkjet Ltd (Konica Minolta)
- Jiang Hong, General Manager, Flora, ShenZhen Runtianzhi Digital
- Lydia Li, Assistant General Manager, Flora, ShenZhen Runtianzhi Digital Equipment Co.
- Valery March, OEM Director, Caldera RIP
- Mark Meng, Building Materials & Ceramics Dept. Project Manager, Ccpit Building Materials SUB Council
- Patrick O'Hara, Director of Technology, Industrial inkjet Ltd
- Jordi Rebate, Communication, Publica, s.l.,



We at FLAAR always enjoy visiting the hospitable management of RTZ Flora in their booth.



Nicholas Hellmuth at Durst booth



Nicholas Hellmuth at Wanxing booth



Most attendees at TECNARGILLA were local

I am sure that attendees come from around the world but I estimate more than half the attendees were from Italy. Yes, I did hear several other languages being spoken, and you could see people from different cultures at the expo, but this was not as multi-cultural as drupa.

Most booth personnel at TECNARGILLA spoke Italian and Spanish

Since FLAAR is tri-lingual (Spanish, English, and German) we can generally converse with booth personnel at expos around the world. The exceptions are Japanese printer expos and Brazil printer expos. Hardly anyone at the one Japanese expo had much interest to speak English (or Spanish or German). In Brazil I was surprised how few people spoke Spanish or English. But in Brazil I could still find more people who spoke one of the three languages than I could in a Japan expo.

But at TECNARGILLA just enough spoke a language I could understand, plus I can understand Italian acceptably and French just enough.

SACMI booth, the staff speaks Italian and Spanish

Bologna airport

Travel to and from TECNARGILLA

Gradually we are adding a special FLAAR Report for how to travel to and from each (printer related) expo in the world. The purpose is to assist exhibitors, distributors, and printshop owners to more easily plan and handle their visits to each expo.

We already have four years experience visiting expos in Guangzhou, so have a travel PDF available for corporate management who wish to visit any expo there. Cost depends on whether you order it as a package (together with the TRENDS on printers for that expo), or whether you wish to order just the travel PDF by itself.

Normally this is a separate PDF but since we were so busy at the ceramics expo we had no time to sightsee or wander around Rimini. But we do have notes on the Rimini airport (a very different place than the Bologna airport), and notes on the Rimini train station(s), plus on the hotel adjacent to the fairgrounds. All this information is in the TRENDS report. If you plan to visit TECNARGILLA for the first time next year (which for TECNARGILLA would be 2014), then you would need the TRENDS for 2012 to do your planning anyway.

Only one cab was in front of the expo center when I had to leave.

The evening we arrived at the Rimini Fiera train station, we were the only people who got off the train, and I do not remember seeing any taxi cab at the train station. So we hiked 150 meters with all our baggage to the fairgrounds hotel.

The day I had to fly to Reklama Moscow, in the middle of the expo business day, there was only one single solitary taxi in front of the expo center.

At any other expo in the world you would expect scores of taxis entering and leaving every five minutes. Not so whatsoever at Rimini Fiera. It seems that most people arrive by car, or if they are exhibiting their company has a chartered shuttle bus from their beach-area hotel.

FLAAR has been studying printing on unique materials for many years. Here are a sample of our publications using various inks (inks other than "ceramic ink").

You can order these from FrontDesk "at" FLAAR.org. The more you order at one time, the more discount is available.



\$220.00



\$120.00



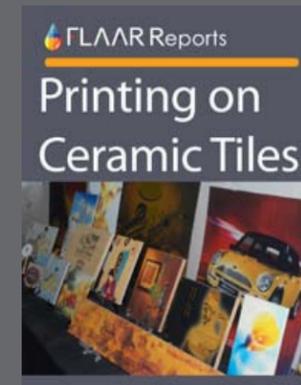
\$120.00



\$420.00



\$210.00



Get this report by filling out our [Inquiry Form](#)

We have been studying printers for glass for several years. Here are examples of our publications. We will be attending the leading glass expo in Europe in two weeks and will have several FLAAR Reports on this market application.



\$120.00



\$1200.00

To order FLAAR Reports write: FrontDesk@FLAAR.org



Tecnargilla 2012 RIMINI

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