

Trade press article

What is it that makes the rest of the Flexo world move?

(This has been written for readers from the European continent looking for trends and new technologies.)

After the author has had the honour to be part of the jury that judged the Flexo print quality of international entries to the FlexoTech Award he wants to summarise his observations and lessons learned. These do partly differ noticeably from the central European Flexo market and may therefore help the continentals to spot trends and desires of the international clientele.

As has been reported lately the entries to the DFTA AWARD 2017 have left a very positive impression and the certainty that Flexo must no longer hide behind any other print process with the entire jury and myself. My last occupation in a similar mission, this time for the FlexoTech Award, where I was part of the jury, too, has strengthened this impression. But there were also other aspects from which the continental Flexo market may learn something. This is to report about these aspects.

Stochastic screening everywhere!

I found the high frequency of stochastic screens being used in some print samples particularly striking. There were extra high FM screen counts in quite a number of samples which even under the microscope came very close to the appearance of a true photograph. But also the lesser FM screen counts could not be recognised to be screened at all. Goal achieved!

Stochastic screens promise a couple of advantages which make them attractive for Flexography, the probably most important of which is to vignette down to substrate white with no apparent edge. Moreover, they are less sensitive to slight misregistration and photos thus printed will typically appear sharper and rich of details. I do furthermore see them as a good and partly necessary tool to master Fixed Colour Palette printing, should this become the overall standard. If even the smallest details of a print design must be composed of several colour separations in order to achieve the desired colour hue, the conventional AM screens will quickly show sawtooth effects at the edges, whilst stochastic screens will "blur" this effect away much better. Visitors of the DFTA Technology Center's demonstrations at last ProFlex exhibition were able to convince themselves live about this fact. The DFTA Technology Center thus works on an own stochastic screen, which will integrate all the gathered expertise around halftone screening for Flexo.

Printing with a Fixed (Multi-) Colour Palette coming massively?

In reviewing the large number of entries to the FlexoTech Awards the observer can not help the impression, that the Flexo industry tries to avoid special colours ever more often and work with a fixed colour palette instead. These are mostly six or seven process colours, but I believe to have spotted a trend towards using the CMYK primaries only.

Whoever has heard about my visions on the future of Package Printing will know that I envision this path of Fixed Colour Palette printing (aka Extended Colour Gamut) to be inevitable to pursue for Flexo. It promises to "industrialize" Package Printing finally and Digital Printing gets away with fixed colour palettes anyway. This is why I believe that us Flexographers should familiarize with FCPP rather sooner than later.

Preprint on a par

The FlexoTech entries did not show any quality advantage over the continental market in this market niche. If anything it was the openness for trying new technologies and solutions that seems to be greater in the regions outside central Europe, where most of the entries come from. Those preprint shops, it appeared to me, seem to be more willing to adopt new technologies such as stochastic screening or FCPP than the typical Germans.

Postprint goes strong!

The number and, most of all, the high print quality of the entries of this category came as a surprise for me. High screen counts, a perfect absence of the washboarding effect and best register document excellent mastering of this market's demands. Those entries were absolutely on a par with the DFTA AWARD entries, if not ahead. The top level of entries thus was both broad in number and close together in terms of quality. The few direct conversions from Litho-Offset in these categories proved that Flexo has achieved quality leadership in the Corrugated Postprint sector by now.

Flexo for Folding Cartons?

Printing folding cartons is perhaps the Package Printing market segment where Flexography has been represented least. This is indeed surprising in that Flexo, in being a web-fed process, does offer a number of solid advantages for the medium and long runs, but this seems to be unknown to the central European market players still.

Admittedly, the FlexoTech Award entries have not increased in number over the years substantially, but they seem to be based on a socket of job serieses which will be entered into the Award in an updated version every year. They tell the interested observer that Flexo does match Litho-Offset at least in quality for a while already. A number of printers, perhaps located mostly in the English language area, seem to have found a sustainable niche there.

Enhanced Ink Transfer

An aspect where the entries of both the FlexoTech and the DFTA AWARDS range on a par is the use of structured print forme surfaces with the goal of enhancing ink transfer. This can now be found everywhere and so frequent in number that one is lent to believe this is a necessary precondition for winning an award by now. In being an outright adversary of the ever higher imaging resolutions that are typically required for establishing such surface structures I may contradict, but even I have to admit that such print samples show fantastic ink densities and a perfect ink laydown. I do, however, prefer to achieve this with those photopolymer print forme materials that come with an integrated matte layer. Though not as much as a well-chosen digital structure, they deliver significantly enhanced ink transfer, but with much less technical effort in plate making.

Printed Security Features

Something I had experienced in my work already seems to be confirmed now on an international basis, namely the desire to make the lives of the product counterfeiters much harder by using printed security features. I do develop particular halftone screening structures which will be extremely difficult to copy and have found similar approaches with the FlexoTech Award entries, though not as far-reaching and delicate. This has not been the case with the DFTA AWARD entries and thus may indicate a growing trend. Maybe we must get acquainted to the fact that in future even mass products may be counterfeited on one hand and must be protected against it on the other, which may lead to the use of particularly detailed structures in the print forms. But please mind: this has nothing to do with the aforementioned surface structures meant to enhance ink transfer. We do rather speak of dedicated modulations of halftone dot shapes here.

Flexography better than Digital or Gravure?

Of course, the convinced Flexo person that I am, I was particularly happy to see a number of entries where Flexo was bound to reproduce existing package designs originally printed with other printing methods. The respective entries all succeeded to do so, but it were the ones where Flexo has surpassed the originally used printing methods noticeably that stayed in my memory most intensively. As this was true over several entries representing Gravure, Litho-Offset and Digital I was reassured one more time that Flexography is indeed on a par with all those and has adopted even a quality pacemaker role in more than a few cases. Everything went well!

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