6TH ANNUAL PLATE/ SLEEVE/PLATE MAKING GUIDE

# Quality or Productivity?

## Achieving Both—a Flexographer's Dream—Is Possible

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The flexo printing industry continues to strive for excellence: The best print quality, coupled with productivity improvements. So it is no surprise that in DuPont Packaging Graphics' *Customer Needs Survey—Flexo Market*, a survey of flexo printing plate users, a majority of respondents said they consider high ink transfer with improved printed tonal range among the most important attributes for success. A majority of respondents also indicated that coming to color faster and running at higher press speeds were equally important. In the plateroom, users are looking for plate to plate consistency and features that contribute to superior print quality on press. In addition, they are looking for improved plate making productivity.

Flat top dots have the potential to deliver the ink density and tonal range improvements that continue to grow the competitiveness of flexo. There are a variety of workflows that have become available in recent years—all of them have some level of complexity, as they need to be combined with other prepress modifications. So far, none of these workflow enhancements have been easy. So, let's discuss a new choice that makes life easy in both the plateroom and pressroom.

### FLAT TOP DOTS

What is preventing flat top dots from becoming the choice of printers everywhere?

Excellent vignettes and highlights can be achieved with standard digital dots. However, there are many who value flat top dots because of their ability to achieve near 1:1 reproduction, tonal reproduction, solids to highlights and range. These qualities inspire many to look at what it takes to produce plates with a flat top dot. What they find is the path to a flat top dot can be complicated.

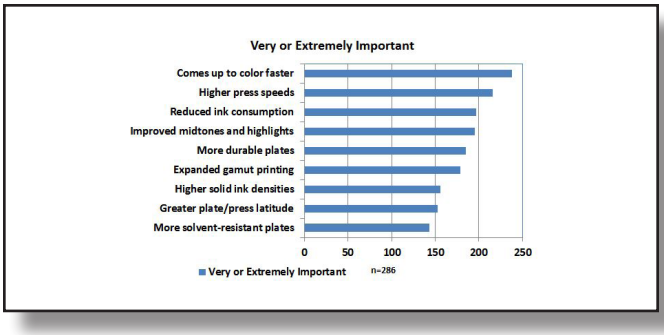


**Figure 1:** Needs of flexo printing plate users gathered from a global survey.

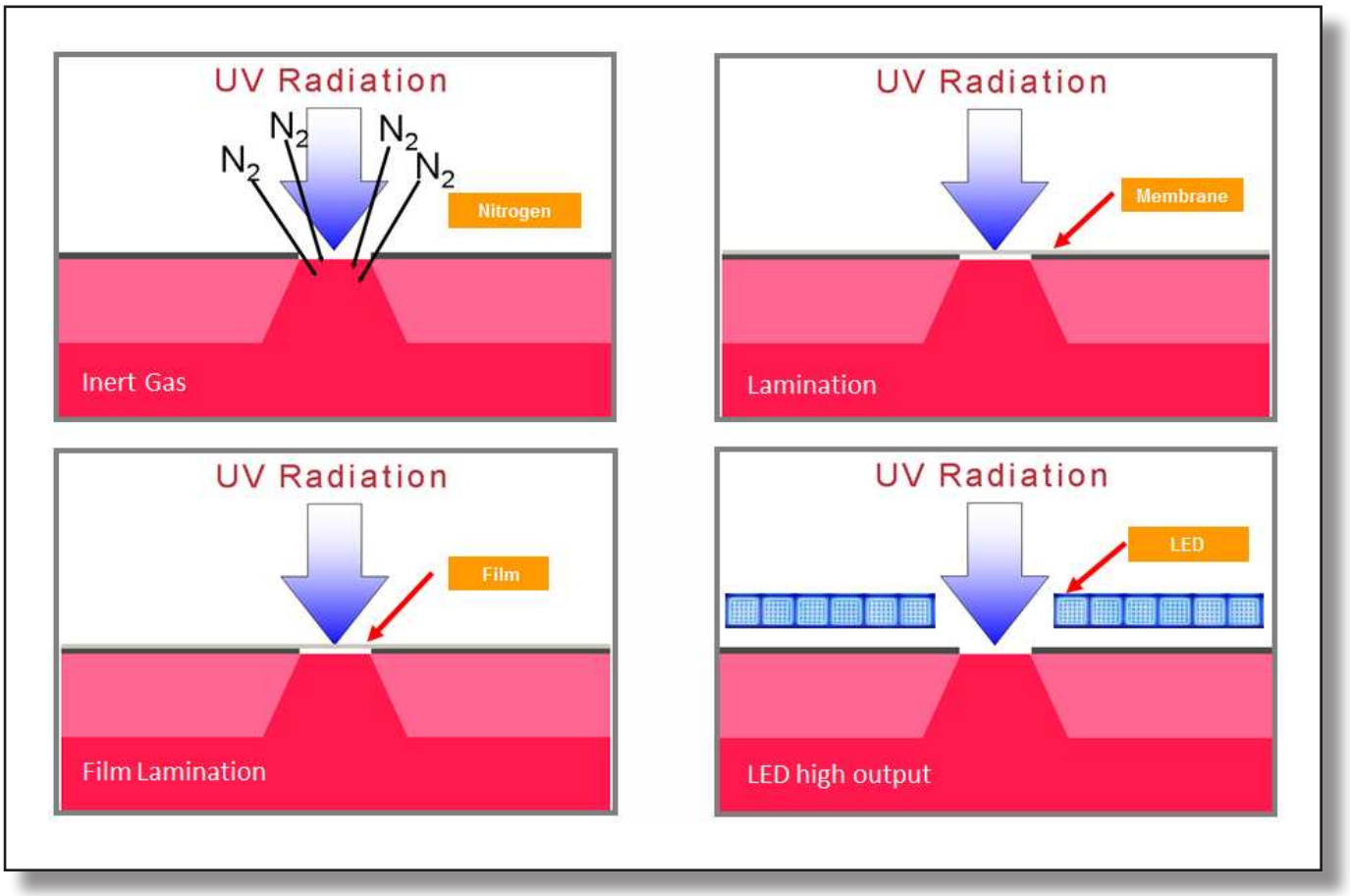


**Figure 2:** Flat top dot solutions available to date in the market.

In a FLEXO article more than a decade ago, Brad Taylor and I elaborated on the mechanism behind dot sharpening observed in plates produced by what is today referred to as the standard digital workflow. Most plate and plate making system producers in the industry have tried to tackle the task of flat top dot production by understanding the chemistry behind the mechanism of dot formation in the printing plate.

There are a couple of solutions available on the market that use either an imaged film or a barrier membrane that is laminated to the plate prior to UV exposure. There is another solution that uses powerful LED lamps. Still a third solution relies on an inert gas blanket under which UV exposure is done. All these solutions can and do produce flat top dots. They all require more steps in the workflow and/or additional investment in equipment needed to produce the plates.

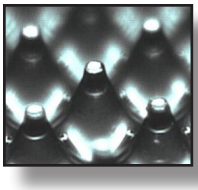

**Figure 3:** Flat top dots created by using DuPont Cyrel EASY Technology.

## IS THERE A SIMPLE SOLUTION?

There is now a simpler, easier way to make flexo printing plates with flat top dots. Cyrel EASY Technology is built into the plates and produces a flat top dot. All a user has to do is main expose plates as they did with standard digital plates—in air (normal atmosphere). Plate makers do not need to change what they do; the science takes care of it. Because human error is erased—by removing additional steps like lamination—the results are consistent. No additional equipment upgrades, such as LED lamps, are needed.

This platform improves the workflow to create flat top dots, and as the technology can be combined with innovations including thermal processing, textured surface and advanced screening, the on press performance of the plates is unique. This gives flexographers the ability to set new records for quality as well as productivity in the plateroom and pressroom.

If an operator uses solid screening to achieve smoother solid ink laydown—a perfectly acceptable solution—it may present a productivity challenge in some prepress operations. A solution that has been available to address this issue has been textured surface plates with

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built in performance. Now, when the same user chooses to switch to the Cyrel EASY solution, there is an opportunity to move to a textured surface flat top dot which could potentially eliminate the need for screening in some jobs, thereby enhancing productivity and quality.

For flexographers interested in achieving sustainability goals, such as eliminating or limiting the use of solvents, combining the benefits of built in flat top dot technology with thermal processing is a very viable option. In these instances, flexographers are enhancing the quality, productivity and sustainability of their operations.

## WHAT'S RIGHT FOR YOU?

John Kotter, leadership and change management guru, introduced his eight step change process in *Leading Change* in the early 1990s. No matter what one's specific goals are for improved quality, productivity or sustainability, it is important to recognize the journey toward that goal is a change management effort.

Removing obstacles is a key step in Kotter's process and EASY technology is specifically designed to erase anything that prevents wider adoption and use of flat top dots. By enabling the modern flexographer to create flat top dots in a solvent or thermal workflow, with or without a textured surface and with or without solid screening, this plate technology both meets their current needs and provides a comprehensive toolkit to bring along in their quest for excellence. ■

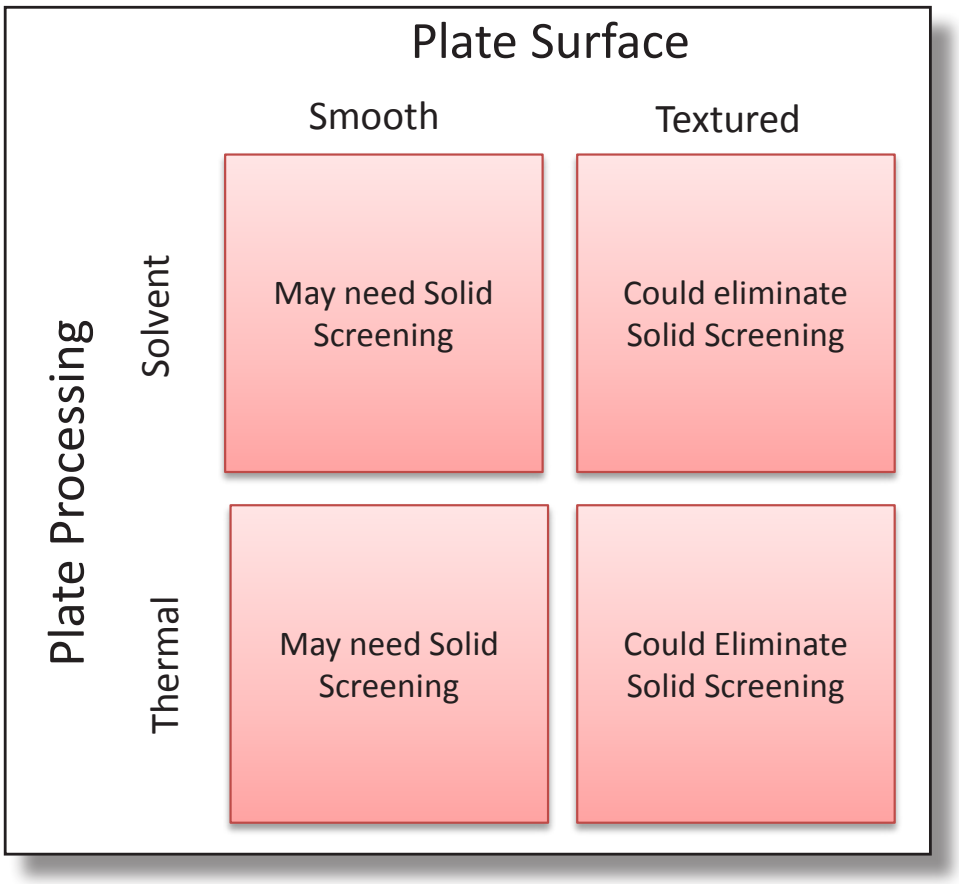


**Figure 4:** DuPont Cyrel EASY Platform choices

**About the Author:** *Andy Kannurpatti is the Americas marketing manager for DuPont Packaging Graphics. One of the inventors of the Cyrel FAST thermal processing technology, Andy has worked in the industry since 1997. He received a Ph.D. in chemical engineering from the University of Colorado and an MBA in marketing from Drexel University's LeBow College of Business.*

*A copy of the* DuPont Packaging Graphics Customer Needs Survey—Flexo Market, *from August 2015, is available on request.*