Ask the Technical Experts!

One of the benefits of membership is the technical expertise provided by Printing Industries of America. Our technical experts from the Center for Technology and Research discuss common production problems and issues. The Center for Technology and Research helps members with environmental, health, and safety concerns; consulting and on-site technical assistance; Technical Association of the Graphic Arts; and technology training.

Q. What are hickies?

A. Hickies are printing defects visible as small voids in a printed ink film where ink does not transfer on the plate or blanket. Doughnut hickeys appear as a white void with a solid spot in the center. Doughnut hickies are caused by non-water absorbent particles such as dried ink, rubber pieces from ink rollers, or pressroom dirt. The contaminate particle accepts ink, the raised particle transfers the ink, and no ink transfers around the contaminate particle's edge, creating a ring or doughnut shape. Void hickies appear as white spots and are typically paper-generated. They absorb fountain solution and repel the ink, resulting in a white spot. Preventing hickies involves keeping a clean press area, including overhead lighting and duct work.

Q. On the digital front end (DFE) of my press, I see different options for rendering intents for separating color. What are they, and what's the difference?

A. Rendering intents describe how out-of-gamut colors (like those in the RGB color space) are mapped to in-gamut colors (like those in the smaller CMYK color space). You have three options: saturation, perceptual, and colorimetric. Saturation moves out of gamut pixel colors to the closest in-gamut color, but also moves in-gamut colors outward. Saturation rendering intent is good for bar charts, pie graphs, and such, but not for most other image types. Perceptual moves out of gamut pixel colors in proportion to the in-gamut color and also moves in-gamut colors inward proportionally. Perceptual maintains the tonality of the image at the expense of color saturation. Colorimetric, like saturation, moves out of gamut pixel colors to the closest in-gamut color but has no effect on in-gamut colors. Generally speaking, the colorimetric rendering intent is best for most images and, in most software applications, is the default setting.

Q. We don't measure anything other than our financial performance. What else should we be measuring?

A. Your company is not unusual, however there are key performance indicators (KPIs) that companies should be measuring to understand if they're improving and allow them to benchmark

against other companies. One of PIA's top consultants, Steve Anzalone, recommends that companies start with these three metrics: on time in full (OTIF) deliveries as a percentage of total jobs, cost of spoiled work as a percentage of sales, and customer complaints. All are measurements of company-wide performance, rather than specific to one area. PIA's KPI survey earlier this year revealed that the most common production-oriented KPI for U.S. printers is makeready time/waste followed closely by cost of spoilage, press availability as a percentage of planned hours, and OTIF.

Printing Industries Resources:
Offering unbiased and confidential results, Printing Industries of America provides a range of testing and laboratory services, as well as consulting. For more information, please contact techhotline@printing.org, labservices@printing.org or consulting@printing.org.