TLMI Presentation – Measuring Before Wasting

Converters are always searching for ways to reduce waste but a significant method of doing that is often overlooked—instituting a solid data collection and management system that defines, measures, and minimizes waste.

The success of arriving at a consistent and quality end product is predicated by the institution of a measurement plan that controls data, says Jessica Harkins, Technologies Manager at Anderson & Vreeland, who recently gave a presentation, "Measuring Before Wasting," at the 2013 Tag and Label Manufacturers Institute Technical Conference in Chicago, Illinois. "Data collection requires interpretation," she says. "Employees may interpret the same information differently, so converters need to have a program in place that evaluates the data and provides strong guidelines."

Best Practices

"Why are jobs rejected?" asks Harkins. "Usually because of color inconsistencies, and copy and material issues." Harkins has identified a program of best practices to reduce waste: The establishment of a controlled environment, a target, and a determined tolerance for data results. Another necessity, says Harkins, is having a plan for identifying data the falls outside of your established tolerance parameters, along with a corrective program.

Prepress

To reduce waste, proofing must be consistent and accurate, says Harkins. Software-based-services are an efficient method of doing this, but, of course, automation will only work if the files its based upon are correct. If a file enters the system for which proper rules are not set, there may be errors in output. "It's essential that there is high-level quality control approval of jobs after an automated process," says Harkins.

Accurate color proofing is another area effects final job output. "The whole point of proofing is to generate a predictable match to the final output, and in order to do this, the press room must be consistent and accurate when creating color profiles, then running live work."

Platemaking

The main functions in the plate department include laser imaging, exposure, and processing. Implementing quality control checks in the platemaking department will help ensure that all equipment is functioning correctly. Operators should check raw materials

for gauge, laser ablation (to ensure clean imaging), UV lamps for proper and consistent exposure, and general cleanliness and care of the plate processor. Then using a plate measuring device to assess a few measurements on a control strip will confirm (or not) that the platemaking equipment is working correctly. “If any defects are found in the final print, it is easy to determine that the plateroom is not the culprit,” says Harkins.

Press

The core functions of the press department include job make-ready and job approval, plus verification of print consistency over the length of the run.

While make-ready preparation times can vary, instituting a standard procedure for operators to follow is important. This should include inspection of raw materials and tooling, such as substrates, inks, plates, sleeves, mounting tapes and anilox.

Finally, the approval process, while the last step, is just as important in ensuring a waste reduction program is effective. Setting guidelines pertaining to who is qualified to approve jobs and how jobs are proved will ensure consistency, while creating a course of action for approvals during the life of the run to avoid degradation.

Handheld devices for density, dot gain, gray-balance and spectral color data are available, and it’s just as important that the operators and approvers know how to use and troubleshoot measurement devices. Fairly new to the market are web-inspection color measurement devices that can dial into areas on the printing job and collect measurements throughout the length of the run. Once collected, either by hand or via web-inspection, software applications are available that can direct the operator to a better match, or store the color information history and use on repeat jobs. “This makes the process of repeating and verifying consistency over the life of the run relatively painless,” says Harkins.