Reading the Plate Control Strip on plate

Assessing the Plate Control Strip

Image the Plate Control Strip in the nonprinting clamp margin of all printing plates.

The elements of the Plate Control Strip are arranged for quick visual examination. At a minimum, you should inspect the Visual Checkerboard section on each plate. Other elements of the Plate Control Strip may indicate problems with parts of your process.

A visual inspection of the Plate Control Strip as it appears on each plate allows you to quickly assess factors such as the following:

- Overall processing activity for plate development
- Preheat temperature in plate processing
- Writing head exposure level
- Correct RIP resolution and identity
- Assessment of the applied calibration curve
- Correct screening type (AM or FM) and feature size

Using the Plate Control Strip effectively will avoid the "quick fixes" that may not be the best solutions for problems with thermal plate imaging and processing quality.

Using measurement devices

You can measure values using a reflection densitometer designed for lithographic printing plates.

For more accurate and consistent results, use instead a dot reader that is qualified for your screening technology to measure the dot area of the plates.

Before measuring the elements on the Plate Control Strip, you should:

- Use a clean cotton wipe dampened with plain water to gently wipe the area containing the Plate Control Strip.
- Lightly dry the area with another cotton wipe.

This will remove the finisher and any residual contamination from the processor (coating color carry-over within the sections of the processor or dirty transport rollers). Do not scrub, use plate cleaners, abrasive papers, or shop towels, because these actions will change the contrast of the image and affect the accuracy of measurements.

Regular measurement and charting

The best quality control practice for maintaining your system is to have a regular schedule for measurement and to keep careful records. Consider establishing Statistical Process Control (SPC) procedures using the Plate Control Strip. Train appropriate staff (prepress and pressroom) to regularly inspect the image. The purpose of establishing process control of plating is to verify the imaging and processing of the plates, and identify variables in the plate room that might prevent success in daily production.

For best results, measure the densitometer dot area at least once per shift. The key section for this measurement is the checkerboard area described in Visual Checkerboard. By charting over time the dot area of this pixel matrix, you can detect trends in process performance that may indicate a problem with a specific part of your process before it impacts the printed result. The checkerboard elements are more sensitive to change than the job's screening.

Also measure and record the plate processor parameters contained in the Standard Operating Procedure for the specific plate and processor that you are using. Log all applicable variables (temperature, conductivity, developing time, roller settings, replenishment rates, chemical changes, and maintenance practices).