RIPON PRINTERS

TechLines

Technical Information Sheet EPP5

"Now I should be able to do my own black & white halftones, right?"

Our customer education specialist received a call from a customer who wanted to start creating their own black & white halftones by converting RGB images. The customer shared the type of computer he was planning on purchasing, the scanner he wanted and asked about the most current version of Photoshop. Then the customer said, "Now I should be able to do my own halftones, right?" The response: "Yes, you'll be able to do halftones, but what do you know about properly structuring halftones for printing?"

This is the question we have to ask those of you who intend to begin creating halftones… and those who already create your own halftones.

Software catalogs promote the ease of scanning and working with images; the Photoshop manual includes information on adjusting grayscale images. What is missing here, though, is the realization that creating a good halftone is an art – not a software-assisted wonder. As we stated in a PrePress Extra, "setting the proper endpoints – the dot size in the light (highlight) and dark (shadow) areas – is the first step to a good halftone. Then knowing how to adjust the midtones through the shadow is the true art."

Since quality halftones are such an important part of what we do, we know we have to invest to make that happen. In 1993, we spent $133,800 for our first black & white flatbed scanner. In November 2001, we purchased a new model for $29,100. Scanner operators are trained to interpret and analyze original photographs or supplied scans so they can alter dot structures in each individual subject for good reproduction on our presses. These days, our operators spend more to checking customer's images for press compatability.

What are some of the things we do for the customer eager to create their own halftones?

1) Using Photoshop, we will work with you on the phone – explaining how to adjust endpoints and curves.

Scanning resolution

Scanning resolution is determined by the recommended line screen for each press and the available stocks.

For an output line screen less than 150 lines per inch (lpi), we recommend a minimum "quality factor" of 2. For example: for projects printing on uncoated papers where the film will be output at 120 lines per inch (lpi), set the scanning resolution to at least 240 dots per inch (dpi) – ***the lpi times 2.***

A quality factor of 1.5 can be used for 150 lpi or greater since these screen frequencies can resolve finer details.

We will share our pre-set scanner curves that have been re-written for Photoshop and encourage you to work with these curves. Then we will request a test file to review on screen in Photoshop or for outputting to film and review.

2) Request our companion TechLines Sheet The "Art" of the Halftone (EPP12). Included in this sheet are tips to setup your monitor and examples of halftone and duotone adjustments.

3) We encourage you to consider one or more of the following avenues:
   Look for classes at local technical colleges or universities that teach graphic arts.
   Come to Ripon and work side-by-side with our operators or customer education specialist and bring your own halftone files. One customer spent a portion of two days here, trained others at his firm and had improved halftones in his next catalog.
   Seek out training at nationally-known Rochester (New York) Institute of Technology (RIT) or through Printing Industries of America. Both offer on-site training in many graphic arts specialties.

Sound drastic! You bet it is!!!

Halftone quality and reproduction are critical to the sales potential of your catalog – otherwise why show auto parts, casters, book covers…? If you want to enjoy the cost savings and image control by creating your own black & white halftones, please accept the responsibility of learning everything you can about this new "art."

We want to help you develop desired halftone skills because creating good halftones requires more than a scanner and Photoshop.