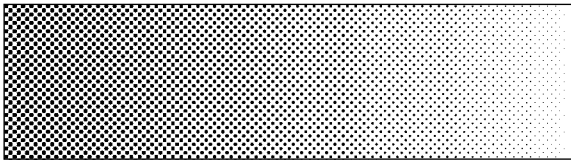


PerfectBLEND™ Hybrid Screening Technology

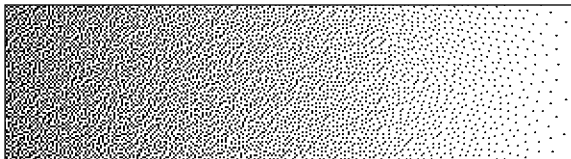
Up to 240lpi and holding! It's all about detail.

RIPit's PerfectBLEND™ feature for CtP and Film Systems™ combines the benefits of AM Screening and FM Screening, allowing you to hold linescreens up to 80% higher than AM screening alone.



Traditional AM Screening

Traditional halftone screening, often called AM Screening, consists of dots placed in a regular grid, which vary in size to produce lighter or darker regions. It has served the industry well, providing ever-increasing quality while remaining relatively easy to use. The limiting factor has been the ability of printers to maintain dots at the low and high ends of the grayscale range; as linescreen goes up, it becomes more difficult to hold highlight dots and keep shadow screens open.



FM (Stochastic) Screening

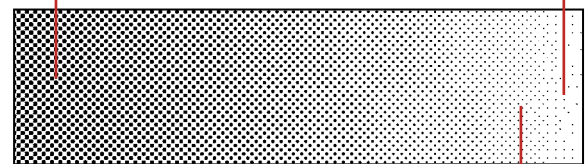
Frequency modulated screening (often called Stochastic screening) uses a different approach than AM, holding dot size constant and varying the distance between dots. Because the dots are smaller and closer together over most of the tonal range, FM screening results in more apparent detail in the midtones and also removes a major source of moiré patterns. But, because FM screening uses dots which are very small, the problems associated with highlight dots in AM screening are present over most of the tonal range in FM screening.

Hybrid Screening

We can see that the limiting factor in AM screening is the size of the dots in the highlights and shadows, and the limiting factor in FM screening is the size of the dots in the midtones. This suggests that a combination of the two could take advantage of the best characteristics of each. Hybrid screening uses a traditional AM halftone pattern over most of the tonal range, and an FM pattern in the highlights and shadows. By using hybrid screening, offset printers can increase the linescreens they use over the AM values, without increasing the difficulty on press.

AM Screening

FM Screening



The PerfectBLEND™



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