

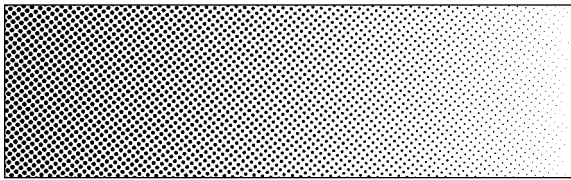
# RIPit® PerfectBLEND™ Flexo

HYBRID SCREENING TECHNOLOGY



## Increase Linescreens and Eliminate the Highlight Break.

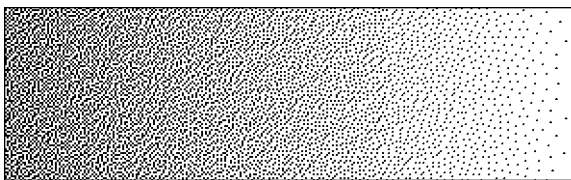
RIPit's PerfectBLEND™ Flexo combines the benefits of AM Screening and FM Screening, allowing you to dramatically increase print quality without increasing run difficulty.



### Traditional AM Screening

Traditional halftone screening, often called AM (Amplitude Modulated) Screening, consists of dots placed in a regular grid, which vary in size to produce lighter or darker regions.

The limiting factor has been the ability of printers to maintain dots at the low and high ends of the grayscale range; as the linescreen goes up, it becomes more difficult to hold highlight dots and keep shadow screens open. Flexographic printers face special difficulties at the light end, because of the physical characteristics of the flexo plate: highlight dots can only shrink to a certain size before they disappear altogether.



### FM (Stochastic) Screening

Frequency modulated screening, (or Stochastic screening) uses a different approach, the dot size remains constant, while the distance between the dots vary. 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 helps to remove moiré patterns.

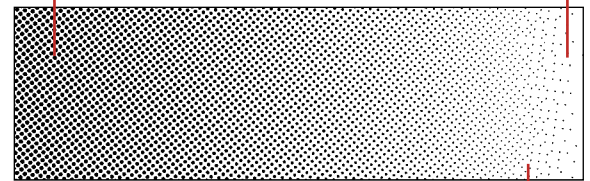
While some offset printers use FM screening successfully, it is problematic for flexo printing because small dots exhibit very high levels of dot gain.

### Perfect BLEND™ Flexo 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. PerfectBLEND Flexo 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, flexo printers can increase linescreens and maintain clean, reliable highlight dots without the characteristic "highlight break," which occurs with traditional AM screening.

### AM Screening

### FM Screening



### AM to FM Transition



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