Hybrid Engraving – Printers Love It

Electromechanical engraving (EME) is known for its consistency & repeatability. However, traditionally it suffers from intrinsic jagged edges limiting linework sharpness. No more…

The Hybrid Engraving System smooths edges and improves clarity with no effect on printing. The cell shape is identical between both types. Only the edge cells are shifted to produce sharp lines. This same, known, cell means no press, ink or blade adjustments for the printer. Let the cylinders roll!

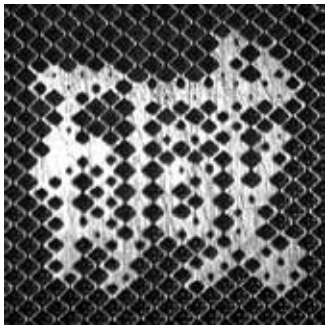

Figure 1
Traditional Engraving

Figure 2
Hybrid Engraving

Orient Press commissioned a new OHIO Prism with the Hybrid Engraving System in fourth quarter of 2016 at their flexible packaging factory in Thane. The results have been favorable. "We have seen improved results using Hybrid engraving. Printed quality of the text is excellent." reports Mr. R. R. Maheshwari, Executive Director of Orient. He continued, "The change to Hybrid created no trouble for us with cylinder printing and customers see the difference in quality."

Figure 3
Traditional Printing

Figure 4
Hybrid Printing

Hybrid Talking Points:

- Density and Sharpness – Typically there is a compromise with EME. A fine screen is needed for the Key cylinder for LW sharpness, but then the print density is compromised due to the small cells. Hybrid allows for both a coarse screen and sharp edges…problem solved. It also engraves faster with a coarser screen.
- No Press Delays – Hybrid retains the known ink transfer characteristics and consistency of standard EME. It is plug-and-play for printers, no adjustments needed.
- Process Simplification - CT and LW in a single pass. There is no reason to separate the artwork into CT and LW and then over-engrave the two since Hybrid engraves them both in a single pass.
- Accurate Artwork Reproduction – Hybrid analyzes the data before it creates the cells, so line and text weight is maintained. This review is performed on-the-fly during engraving and requires no external processing.
- Shifts Tones Too - Hybrid even shifts halftone cells to more accurately reproduce the original artwork. A real benefit in the world of ever complex packaging. Text occurring as a tone can even have the edges boosted to increase sharpness while still smoothing the edge.

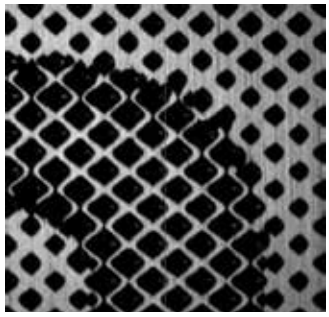

Figure 5
Hybrid effect on tone edges

- Productivity – Two to four times faster than tranScribe. Even a 70 line/cm screen produces sharp LW.
- Broad Range – While Hybrid is normally thought of for standard packaging and cell depths of 60 microns, Hybrid can also be used for coarse screens and high-volume applications. Cell depths greater than 100 microns are within the range of Hybrid.
- Second Generation Solution - OHIO released the patented tranScribe (TS) System in 1996 as a first attempt to improve LW quality. It was successful in some respects, but created other complexities. TS, like Hell's Extreme, creates unique cells through a series of multiple scratches. Unfortunately, these scratches formed a complex 3D cell shape with problematic ink release making life hard for the printer. The engraving time was also excessive, making it impractical for most cylinder makers. OHIO's second generation Hybrid is designed to overcome these points.

The OHIO Hybrid Engraving System is making itself known not just to engraving companies but also printers around the world.

OHIO GRAVURE TECHNOLOGIES