

SMAG Graphique
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① Over the last 10 years die-cutting has reached a high-end quality level and almost all manufacturers became experts in their technologies whether in the rotary/semi-rotary or laser technology. But the customer expectations have also evolved as they cut less and less paper and much more film and IML. Die-cutting has become a complex and delicate process but needs to keep following the standard high running speeds which has also doubled over the last decade.

② The most suitable system depends on the targeted markets. The laser die-cutting answers most of the situations for digitally printed labels due to the very reactive free tooling set up and the barcode reading module with job changes



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Source: SJ/AC

on the fly. Speeds up to 100 m/min (328 fpm) can be reached. Mass consumption product labels like food or beverages would be the perfect laser cut target. High-end value added labels with silkscreen, hot stamping, embossing require absolute precision in printing as well as die-cutting and speed is not anymore the main element of the equation. The production pace follows the screen and stamping steps. A semi-rotary die module, is also much cheaper than the laser, and is perfectly adapted to the perfumes or spirits applications.

③ In my opinion the best performance nowadays is achieved with the semi-rotary die-cutting process that provides an excellent cutting quality level coupled with low cost tooling at a standard speed of 60 m/min to 70 m/min (196 to 230 fpm). Magnetic plates are now easily and quickly delivered at very affordable prices. Furthermore, thanks to servomotors and the automation progress, the presses are now able to register the jobs more quickly and provide automatic pre-setting features.

④ High end added value labels such as wines, spirits, cosmetics, do not require laser cutting as the white edges phenomenon can be a problem for the very high demanding end-users. This segment of the label industry also includes very short runs and the cost of the laser technology can restrain the enthusiasm for this new process. High volumes and long run of easy-standard label formats would be perfect for the laser cutting technology.