

# Challenging outdated laser coding perceptions

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Locally represented by Pyrotec PackMark, global coding and marking specialist Markem-Imaje has produced a guide to help manufacturers meet the technical challenges commonly encountered on today's production lines. The guide specifically focuses on laser coding technology and considers how the use of more complex and longer codes, coupled with increasingly demanding regulatory standards, is affecting everyday operations.

Illustrating how new technology – including improved cooling systems, reduced maintenance requirements and improved reliability – is helping manufacturers cover the most difficult applications, the guide challenges out-dated perceptions and shows how laser coding solutions can offer financial savings and improve coding quality.

Delivering a coding capacity of up to 1,400 bottles or 600 packs per minute, and the ability to mark codes of up to 60 characters while operating 24 hours a day, seven days a week, SmartLase coding solutions from Markem-Imaje have been engineered specifically to meet the challenges of advanced integration and the fastest production lines.



A unique cooling system, which features two central fans in addition to heat dissipaters at the front and rear of the coder, provides balanced cooling across the laser source and the scan head. This enables SmartLase solutions to operate effectively within a wide ambient temperature range (5°C to 45°C) with application duty cycles as high as 80%, without any adverse effect on code quality, and with no downtime. In contrast, many conventional laser coders can only operate effectively at up to 40°C with application duty cycles limited to a maximum of 60%.



Ongoing reliability tests have been conducted with many SmartLase coders over a period of more than three years. "Each unit has been subjected to extreme conditions, including temperatures up to 45°C (the highest risk area), high print cycle rates for up to 23 hours per day, and inrush currents to stress the laser's components. These tests have accumulated over six billion prints to confirm a Mean Time Between Failure (MTBF) of 60,000 hours. This includes the laser source, print head and controller," says Paul Hebert, manager, product reliability and regulatory compliance at Markem-Imaje.

To protect the laser from dust and liquid, SmartLase coding solutions are constructed using modular stainless steel units with an IP55 rating as standard (IP65 optional). Unlike conventional laser coders on the market, SmartLase solutions offer greater protection in wet and dusty environments, improving operational efficiency and cutting costs. Maintenance requirements are minimal and all electronic parts are housed within sealed compartments to protect them from the most rigorous cleaning procedures that might otherwise cause random faults.

Stéphane Valette, group laser product manager at Markem-Imaje, concludes: "Our advanced laser technology is engineered to operate at very high speed and to reliably print high-quality codes. Over three years of testing, our laser coders prove to be more reliable than other coders on the market."

To find out more, download the guide at <http://bit.ly/2msKuA1>.

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