

# New SmartLase

CO<sub>2</sub> laser coders ■ ■ ■

## POWER UP your packaging line



Re-inventing the laser technology for the coding needs of your industry:

### > Fast

More than 100,000 products coded per hour

### > Innovative

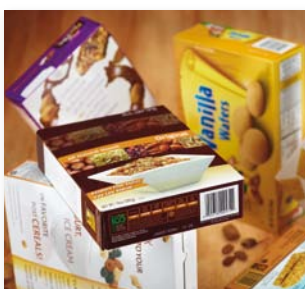
Up to 99.9% availability ratio with easy integration

### > Robust

Extended coder life time by 30%

### > Customized

Wide range of industry-specific models



markem·image



## Fast

More than 100,000 products coded per hour

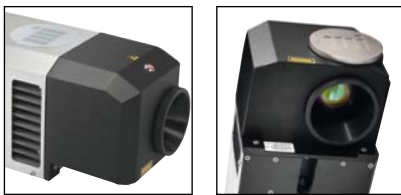
Introducing new, patented “*SmartLase Code Technology*” embedded into all SmartLase models. This innovative advance includes single and universal fonts as well as algorithms capable of scribing impeccable lines, curves and points faster than ever before. It delivers 2 key benefits:

- > 30% greater printing performance with best scribing quality compared to market standards:
  - For the beverage industry: Output rate increases from 1,200 to 1,800 bottles/min.
  - For the food industry: Character printing capacity of one code increases from 30 to 120 characters, for improved traceability and anti-diversion.

- > Ease of access on the user interface to select the best contrast level for each substrate among 3 contrast modes in production:

Contrast modes	End result	Performance*
High contrast, ideal for cardboard	S5	+ 30%
Medium contrast, ideal for PET bottles and labels	S5	+ 40%
Low contrast, ideal for reduction of filter consumption or very thin substrates like flexible packaging	S5	+ 60%

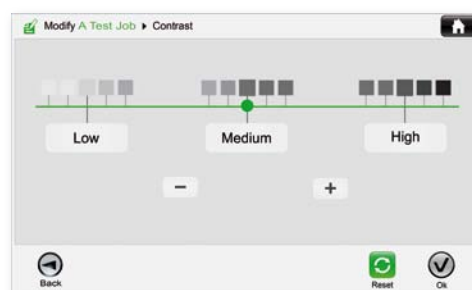
\* Compared to market standards. Can be expressed in production rate, message complexity or number of characters.



## Innovative

Up to 99.9% availability ratio with easy integration

- > Modular design for efficient integration in all production lines and versatility via customer configurable features:
  - 3 separate and compact modules: controller, laser head and user interface.
  - Switch between 90° and 0° head configuration in 10 minutes.
  - Change of scan head module in 10 minutes without alignments.
  - Pointing diode and integrated laser power meter option facilitate diagnostics.
  - Wide range of accessories: fume extractor, stand, guarding tunnel, photocell, encoder, alarm beacon, etc.
- > Intuitive touch screen user interface to reduce operator training and human errors:
  - WYSIWYG 7-inch remote touch screen. The user interface is integrated into the controller in the 10 watts version.
  - Job and file transfers through USB port.
  - Web user interface capability with quick access through PC.
  - Ability to adjust contrast and code position when printing.





## Robust

### Extended coder life time by 30%

The SmartLase range is designed to deliver unmatched reliability and performance in very demanding production environments. Key features include:

- > Laser head benefits from an IP55 dust/humidity protection rating as standard.
- > SmartLase operates up to 45°C (113°F) due to head and controller optimized cooling flows. No plant air is required for cooling.
- > Extended longevity of the laser source due to reduced laser duty cycles.
- > Industry leading 2-year warranty standard, up to 5-year warranty available.
- > Over 80% recyclable materials in line with global green initiatives (eg. WEEE directive).

## Customized

### Wide range of industry-specific models

SmartLase C series offers the right configuration for each industry, always providing a solution whatever the rate, size and substrate of the product (wide choice of lenses, scan heads and laser sources). Market solutions:

- > **Food industry:** SL C150, SL C350 and SL C350 L are designed for markets such as frozen food, chocolate confectionery and dried process food that need to code paper-based containers. SmartLase models are capable of covering coding and scoring applications simultaneously on flexible packaging.
- > **Beverage industry:** SL C150 S and SL C350 S are designed to code on PET, reducing the risk of piercing containers, even lightweight thin-walled bottles. SL C350 is perfect to code on labels.
- > **OEMs:** SmartLase C series features web user interface capability, 0/90° laser head configuration, pointing diode for easy integration into packaging machines and are compliant with ISO 13849 PLd in manual mode and PackML.





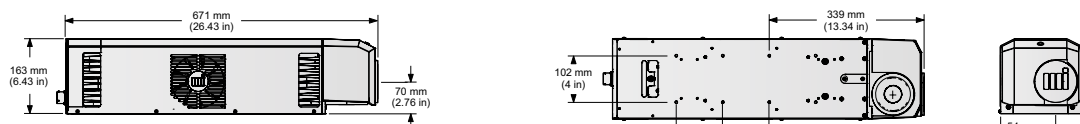
# SmartLase range specifications ■ ■ ■

Model name Laser tube power	SmartLase C150 / C150 S 10 W sealed CO <sub>2</sub>	SmartLase C350 / C350 L / C350 S 30 W sealed CO <sub>2</sub>
Production line speed (max.)	125 m/min.*	250 m/min.*
Marking speed (max.)	900 characters/s	1,800 characters/s
Print features	<ul style="list-style-type: none"> <li>• Coding on stationary or moving products</li> <li>• Number of text lines: limited only by character height and allowable print area</li> <li>• Character height: from 1 mm to 100 mm</li> <li>• Choice of characters : Chinese, Latin and Unicode fonts</li> <li>• 3 contrast modes: high, medium and low contrasts due to patented "SmartLase Code Technology"</li> <li>• Wide selection of languages : English, French, Spanish, German, Italian, Portuguese, Brazilian, Chinese, Korean, etc.</li> </ul>	
Standard coding area and focal distance (mm)	<ul style="list-style-type: none"> <li>• Lens 100 x 100 / fd 140</li> <li>• Pointing diode function standard offering on all laser heads</li> </ul>	
Operations	<ul style="list-style-type: none"> <li>• 7" WYSIWYG color touch screen, QWERTY or AZERTY virtual keyboard, navigation via icons including on-line help file</li> <li>• Message storage capacity of 500 resident jobs</li> <li>• Upload and download of messages via USB Flash Drive</li> <li>• Quick connect/disconnect of laser head and accessories (photocell, encoder, alarm)</li> <li>• Standard inputs/outputs: Ethernet interface, USB (host PC), encoder, sensor, extractor controls, alarms, remote interlocks (dual channels)</li> </ul>	
Other characteristics	<ul style="list-style-type: none"> <li>• 2 separate modules: controller including the user interface, and laser head</li> <li>• Controller weight: 10.6 kg - Head weight: 17.3 kg</li> <li>• Dust/humidity protection: IP54 laser head and IP54 controller</li> <li>• 3 separate modules: controller, laser head and optional user interface</li> <li>• Controller weight: 10.2 kg - User interface weight: 2.1 kg - Head weight: 18.5 kg</li> <li>• Dust/humidity protection: IP55 laser head, IP54 controller and IP54 user interface</li> <li>• Controller: stainless steel - Head: stainless steel and protected coated materials - User interface: protected coated materials</li> <li>• Operating temperature range: 5 to 45°C - Humidity: 5 to 90% non-condensing</li> <li>• No plant air required for cooling</li> <li>• Interconnecting cable length: controller to laser head: 6 m</li> <li>• Electrical power supply: 100-240 V with automatic switching - Frequency: 50/60 Hz - Power consumption: 7 A; 700 VA</li> </ul>	
Options	<ul style="list-style-type: none"> <li>• Coding area and focal distance (mm): Lens 55 x 55 / fd 80 - Lens 70 x 70 / fd 100 - Lens 120 x 120 / fd 175 - Lens 155 x 155 / fd 220 - Lens 205 x 205 / fd 290</li> <li>• Remote user interface on 30 W version</li> <li>• IP65 laser head</li> <li>• Integrated laser power meter</li> <li>• 9-meter interconnecting cable length with an optional 90° printhead cable adaptor</li> <li>• 3-meter cULus listed interconnecting cable</li> <li>• Industrial interface option board: RS-232/422 connectivity, 20 configurable operator I/O (12 inputs / 8 outputs), 2 voltage free relays, USB (optional scanners)</li> </ul>	
Accessories	<ul style="list-style-type: none"> <li>• Dust and gas extractor, stand (controller, laser head and user interface), guarding tunnel, photocell, encoder, alarm beacon</li> </ul>	
PC software	<ul style="list-style-type: none"> <li>• Web user interface provided as standard</li> <li>• Compatible with CoLOS Create Professional and CoLOS Enterprise</li> <li>• Logo creation with CoLOS Graphics</li> </ul>	

\* Depends on the size and the complexity of the message as well as the nature of the surface marked

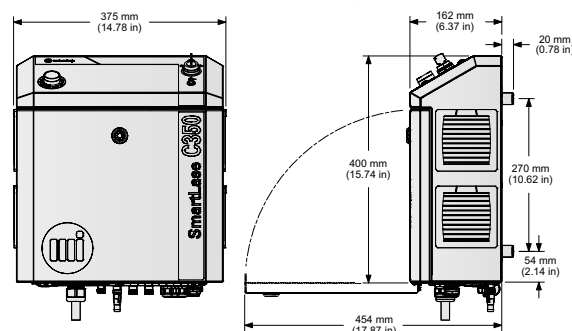
## Laser head

SL C150 / SL C150 S  
SL C350 / SL C350 S  
SL C350 L



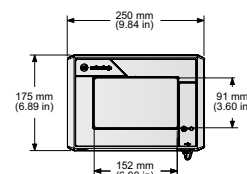
## Controller

SL C350 / SL C350 S  
SL C350 L



## User interface

SL C350 / SL C350 S  
SL C350 L



To learn more, visit [www.markem-imaje.com](http://www.markem-imaje.com)



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9, rue Gaspard Monge  
B.P. 110  
26501 Bourg-lès-Valence Cedex - France  
Tel.: +33 (0) 4 75 75 55 00  
Fax: +33 (0) 4 75 82 98 10

150 Congress Street  
Keene, NH 03431  
United States of America  
Tel.: +1 800-258-5356  
Fax: +1 603-357-1835



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