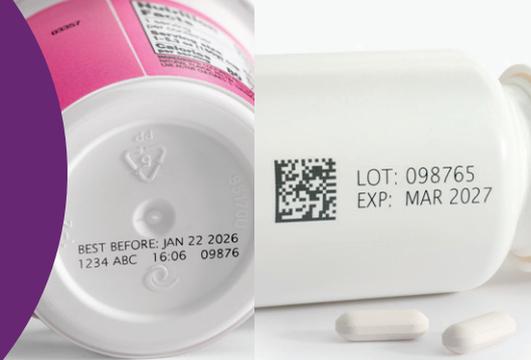




markem·imaje

a DOVER company



5-Watt UV laser coder **SmartLase® UV500**



Ultra Powerful. Ultra Fast. Ultra Flexible.

UV laser technology is the perfect solution for challenging materials.

The SmartLase® UV500 delivers the most precise, high-quality coding with the added benefit of minimal heat transfer. This leaves the substrate surface integrity intact—perfectly suited for high-density and delicate materials. Benefit from exceptional performance in high-speed applications with the added value of solvent-free, chemical-free, permanent markings—even complex 2D codes. All with the Markem-Imaje signature reliability, ease of integration and operation.

The SmartLase® UV500 ensures high speed and quality. Plus, you gain the flexibility to mark on the most challenging substrates.

Your benefits

- Unique marking method, unique marking algorithm
- No chemicals, no consumables—contributing to sustainability goals
- Lower OpEx thanks to less maintenance and fewer line stoppages
- Intuitive user interface
- Industry 4.0 ready—enabling advanced packaging intelligence
- Compact, safe and powerful

Product features

High-definition, damage-resistant, permanent codes

- Our unique combination of a proprietary marking algorithm, a high-speed digital scanning head and the fine laser beam provides ultra-fast and high-quality marking
- Minimal to no interference with material integrity
- Protection against counterfeiting with permanent laser marking

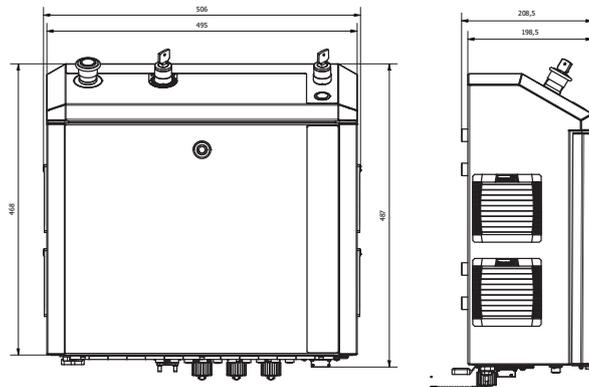
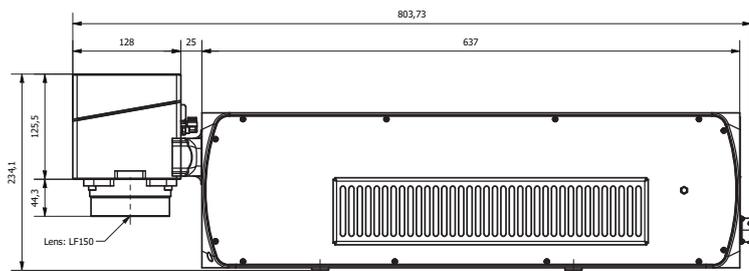
Lower OpEx, higher efficiency and chemical-free

- No consumables needed
- Virtually maintenance-free
- Higher reliability means higher productivity and fewer line stoppages
- Eliminating solvents and chemicals contributes to achieving sustainability goals

Industry 4.0 ready, reliable and safe

- Industry 4.0 optimized with a variety of industrial interfaces such as Ethernet/IP, PROFINET, NGPCL and full-featured CoLOS® software support
- Designed for challenging manufacturing environments with Ingress Protection up to 55
- Meets the highest standard of safety for E-stop and interlock circuits integration per ISO 13849-1 up to PLe

SmartLase® UV500 Specifications



Laser type and properties

5 W, 355 nm UV laser coder, with digital galvanometer control

Applications/substrates

- Polymers and hard polymers: HDPE, LDPE, PP, PVC, PS, PE, etc.
- Flexible film packaging
- Aseptic packaging (Tetra Pak®)
- Glass
- Automotive and industrial parts

Marking speed (max.)

Characters/sec: Up to 2000 char/s

Product per hour: 150,000 pph*

Line speed: Up to 900 m/min*

Print features

Number of text lines:

Limited only by character height and allowable print area

Character height:

From 0.2 mm to allowable print area

Fonts: English/Latin, Arabic, Cyrillic, Hebrew, Korean, Japanese (Katakana, Hiragana, Kanji), Chinese (Hanzi) OCR, TrueType** and Unicode

1D barcodes:

Code 39, Code 128, Code 2 of 5 (industry), I2 of 5, EAN 8, EAN 13, Code 128-A, Code 128-B, UPC-A, UPC-E, EAN 128, ITF 14

2D barcodes:

Data Matrix ECC200, QR Code, HIBC QR Code, Micro QR Code, Aztec, DotCode and HIBC Aztec

Logos, graphics:

DXF, PLT, FPS, EPS, PS, SVG, AI, CDR, PDF**

Data automation:

Static, user-prompted, alphanumeric counter, serial, external promotional codes (CoLOS® only), multi-code/calculated field (e.g., yyyymmddnn)

Time/date handling:

Standard, custom, time / day offsets, prompting BBE date (CoLOS® only), start week, update and rounding rules, custom calendars

Print field manipulation:

Linear, angular, rotation, circular, scaling

Certifications/Approvals***

CE, RoHS, REACH, US-Canada NRTL safety mark, FCC Part 15B

Interface and control

Connections:

Ethernet, PoE and industrial, RS-232, USB, digital I/O, custom programmable outputs, product sensor, encoder, shutter, fume extractor controls, alarm beacon, start/stop, dual channel safety interlocks

Direct laser control:

TCP/IP, UDP, RS-232, NGPCL
Optional: PROFINET or EtherNet/IP

Job set up pointing diode:

Available as standard. Configurable to show content outline, content field or visualize the content characters for easy job changeover

User interface:

10"/250 mm touchscreen user interface in: Arabic, Chinese, Croatian, Czech, Dutch, English, French, German, Hebrew, Italian, Korean, Polish, Portuguese, Romanian, Russian, Slovenian, Spanish, Swedish, Turkish, and Vietnamese

Other UI options:

Remote PC access via VNC

Standard lens 1:

Print area: 150x150 mm / Focal Length: 250 mm/
Working Distance: 342 mm

Standard lens 2:

Print area: 330x330 mm / Focal Length: 511 mm /
Working Distance: 652 mm

Optional lens:

 Up to 500 mm width

Misc:

 Standard Markem-Imaje laser accessories:

encoder, sensors, beacon towers, fume extractors, etc.

Physical characteristics

Ingress protection: Marking unit: IP52, optional IP55

Remote UI: IP66

Controller: IP54

For more detailed information, consult paragraph "Operating temperature range" in the next column

Safety performance level:

The highest standard of safety for E-stop and interlock circuits integration per ISO 13849-1 up to PLe; Category 4 machine safety

Operating temperature range:

Printer marking unit	Operating temperature range
IP52 with integrated cooling	5° C (41° F) to 35° C (95° F)
IP55 with external air blower required	5° C (41° F) to 35° C (95° F)
IP55 with external air chiller and plant air source required	5° C (41° F) to 45° C (113° F)
Controller unit	Operating temperature range
IP54	5° C (41° F) to 40° C (104° F)

Operating humidity:

10 to 95% non-condensing

Electrical power supply:

100 – 240 V AC, 50-60 Hz, 350 W

Controller dimensions:

503 mm x 468 mm x 210 mm

Printhead dimensions

790 mm x 217 mm x 234 mm

Controller weight: 20.3 kg (44.7 lbs)

Printhead weight: 28.4 kg (62.6 lbs)

Umbilical length: 3 m, 6 m, 10 m

Outer material:

Controller cabinet: stainless steel
Printhead: stainless steel and anodized aluminum

Cooling:

IP52 – integrated fan cooling system
Optional IP55 – external cooling system
Plant air might be required

Remote services***

Our intelligent self-support solution
Live helpdesk support with remote video capabilities

* variable based on specific application requirements and substrates

** may require Markem-Imaje support

*** more available upon request



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markem·imaje
a DOVER company

9, rue Gaspard Monge - B.P. 110
26501 Bourg-lès-Valence Cedex France
+33 (0) 4 75 75 55 00
www.markem-imaje.com