



Multibeam: a novel laser technology enabling superior marking solutions for beverages

EPIC Online Technology Meeting on Photonics for Food and Beverages
Dec. 12th 2022

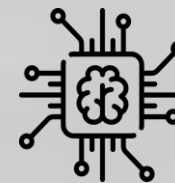
Florent Thibault, CEO

Experts in high-throughput industrial laser microprocessing

We design and deliver **innovative laser material processing solutions** to enable our **industrial customers to produce better**

Applications

- **Laser Marking**
 - **Individual product traceability**
 - Anti-counterfeiting
- **Laser Micromachining**
 - Micro-drilling
 - Surface texturing



Sectors

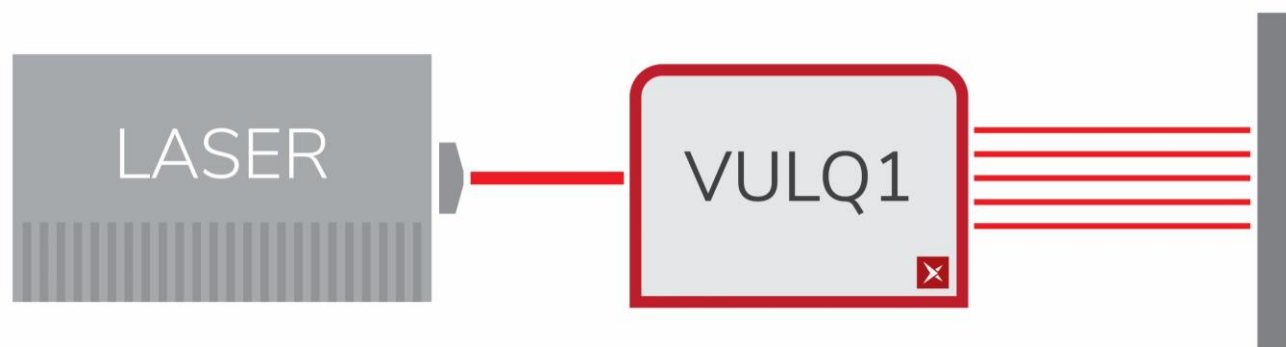
- Luxe
- FMCG
- Medical
- Electronics
- Automotive / Aeronautics

CONFIDENTIAL

Our innovation: Multibeam laser processing



Standard laser processing
Sequential



Multibeam laser processing
Parallelized & faster

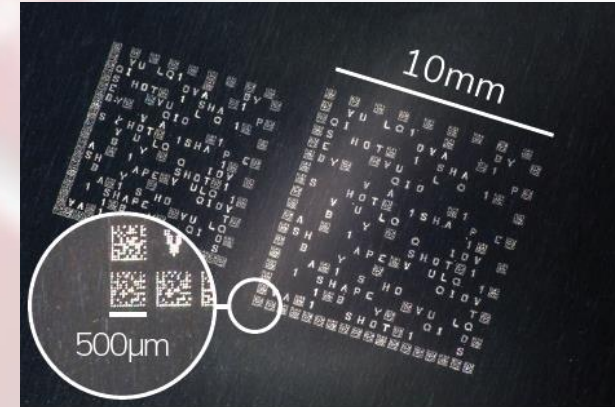
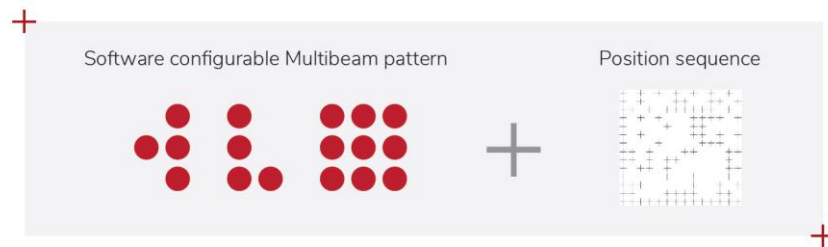


Multibeam processing is like moving from pen-writing to digital printing

PIXEL-STAMP marking principle

Patented!

PIXEL-STAMP Laser Marking head



Superior marking quality
5x faster than raster
Configurable characteristics

- **Key feature: fully configurable « digital » marking**
- **3 main applications for individual traceability of beverages**
 - Consumer engagement
 - Track & Trace
 - Anti-counterfeiting, brand protection



Application case: Boosting customer engagement in consumer goods



MATERIAL:

• Coated Aluminum, HDPE polymer

QR code:

• 12mm

COST PER MARKING:

• 0,03c€/marking

For Beverage industry



- Consumer gets product information ⇔ brands gets first-hand user information
- **Marking time < 150ms, 5x faster than standard marking**
- Direct reading with smartphone camera

Application case: Devellopping customer engagement on high-end liquors

MATERIAL:

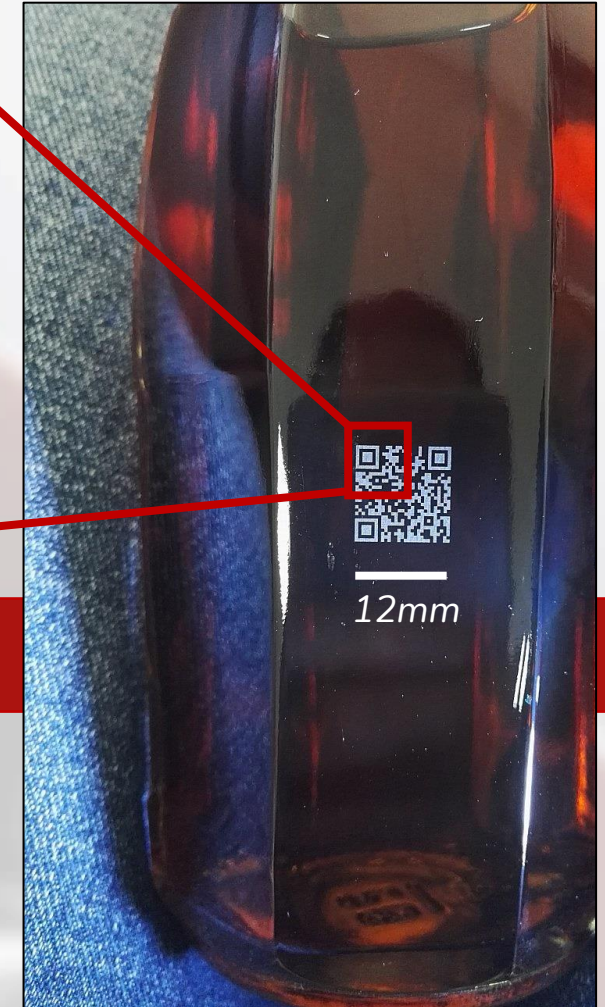
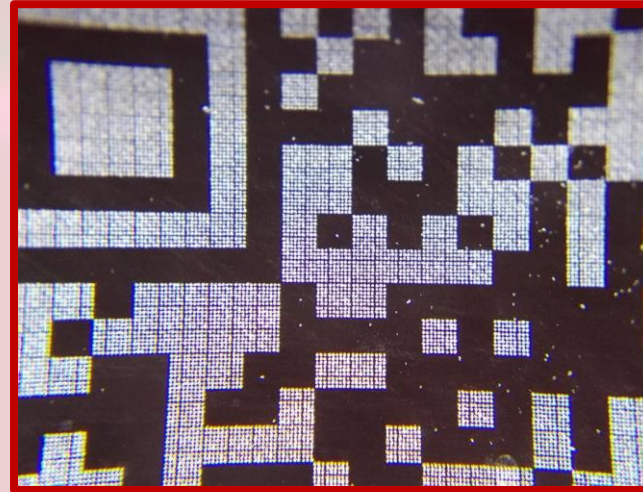
•Soda-lime glass

2D CODE TYPE:

•QR Code, 29x29

COST :

•4c€/marking



For Liquors market

- 12mm size QR code in <2s
- Direct reading with smartphone
- Perfect marking quality for superior brand image

European project BRANDGUARD

High-speed & secured individual marking solutions for packaging




Advanced **laser head** for high-speed and high quality marking




Coding and anticounterfeiting **algorithms** to be implemented by laser marking

Project Coordinator




Laser station for high throughput (>10code/s) for marking on any type of material

Subcontracted: 

MECANIZACIONES ALAVESAS



BRANDGUARD technology integrated in a **new bottling line**

Subcontracted: 

Motivations

- Need for high quality and very fast marking systems for the development of high volume QR coded packaging
- Need to improve the anti-counterfeiting performance of QR codes, by using additional authentication technologies



I am happy to take your questions!

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