IN FOCUS

Macsa id®
a code you can trust

Coding, Tracing and Marking solutions worldwide

Your passport to Smart Factory 4.0

Macsa ID, a code you can trust

Macsa ID provides solutions to meet your coding, identification and traceability needs, combining a range of hardware and software technologies, services, consumables and other supplies to serve manufacturing companies from sectors such as food, cosmetics, pharmaceutical, automotive and electronics.

Technological Leadership

Macsa ID is one of the five most important companies in the world specialized in laser coding and marking, and is known as a technological benchmark in this sector. The company invests more than 10% of its turnover in R&D each year, to maintain its leadership position.

Making innovation one of the company's key strategies has enabled Macsa ID to register over 30 international patents driving many of the major developments in the industry. These include the first dynamic laser for coding on dynamic production lines (1990) and the first fiber lasers for on-line coding (2009).

HARDWARE

SOFTWARE

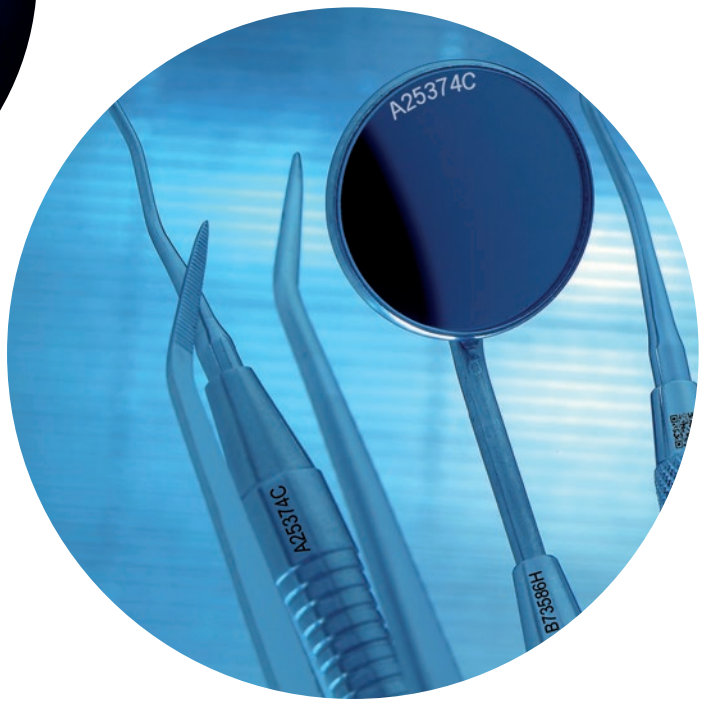
SERVICES

CONSUMABLES

Macsa ID in the world

Macsa ID's headquarters are in Barcelona (Spain). It has also 4 subsidiaries offices, in Portugal, China, Malaysia and very recently in United Kingdom. There is also an extensive network of distributors which covers more than 80 countries.

Thanks to the majority shareholding acquisition of Halo Lasers in UK, Macsa has consolidated its position as a technology leader in the industrial laser marking sector at a global level and has established a direct presence in a key market.



HALO LASERS LTD

"I need a laser that operates reliably in the difficult working environment of my production plant."

Geza Nazy
Senior Packaging Specialist Nestlé
Switzerland

Macsa ID your passport to Industry 4.0 readiness

Industry 4.0 projects are implemented in many companies today with a common objective to integrate business processes through cloud technologies. These help implement synergies across the company. In many cases projects such as big data analytics, preventive maintenance, and remote maintenance by specialists are targeted as the first step in the process.

These projects require the development of products that cover the aspects of maintenance, administration capability, fault-free operation and data collection.

Product development and engineering processes in Macsa are oriented to produce smart equipment. Products have the ability to communicate and are capable of producing multiple data. For example, the power used in any cycle of operation and the working temperature help to determine the amount of power used to code or mark a product.

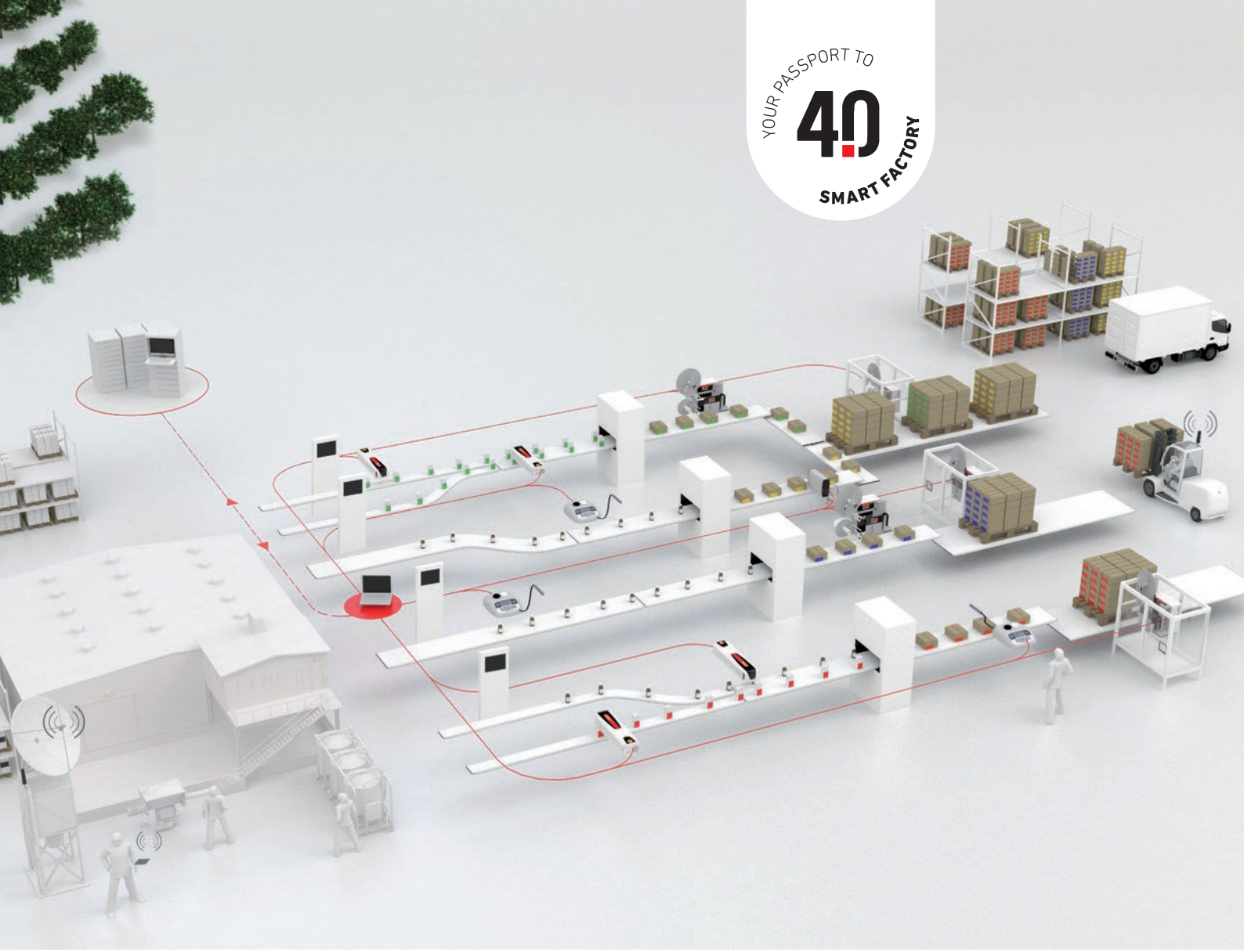
The key enablers for the data collection of our products are sensors and microcontrollers embedded within the electronics, each one monitoring specific conditions. This information can be shared in real-time or collected and shared at defined intervals.

Going forward, everything has a digital identity and connectivity, which means you can identify, track and communicate with these specific objects.

Macsa has developed the Integra software to integrate its coding and marking products with other devices on the production line. This software enables data to be collected from all devices and this can then be used to make your lives easier, drive efficiency and help you to anticipate adverse performance

Integra software collects data from both internal and external sources for decision making, to improve your manufacturing processes and operations, giving the capability from data flow to analytics.

Joan Canadell
After Market Services Director



Macsa's product concept allows you to integrate equipment in the production line, to connect it with other devices and to central databases.

This enables you to improve performance through:

TRACK & TRACE

Real-time tracking of production goods to enduser alerts when they do not fulfil pre-defined quality standards.

EFFICIENCY & OPTIMIZATION

Based on usage data, you can define more appropriate operation processes in terms of speed, scale and costs.

IMPROVE PROCESSES

With usage data generated by connected equipment, you can develop or redesign new components/ processes to avoid specific failures and eliminate unused features.

MAINTENANCE SERVICES

Through continuous monitoring, you can determine when maintenance will be needed, saving on routine maintenance costs and avoiding failures.

> *"I need a laser that is designed to be easy to integrate and to use in my plant."*

Sina Adeniran
National Electrical & Automations Manager Coca-Cola
Nigeria

integra by Macsa id

The modular software to control, manage and optimize the production line

integraconnect

Connection software for integrating different equipment (coders, readers, artificial vision...) from the main manufacturers.

integraoptima

Application for centralized management of the coding, marking and identification process.

integravision

Solution to manage and check both the production and coding processes.

integratrack&trace

Traceability solution for production processes.

integraserialization

Module for the individual traceability on the supply chain.

integraefficiency

by Shoplogix

Monitoring system for managing the efficiency of the production line, while optimizing it.

Serial Farma

The solution to the FMD from the start to the finish

Serial Farma is the result of an agreement between Macsa, leader in coding and marking solutions, and Adents, the most powerful and reliable serialization and traceability solution.

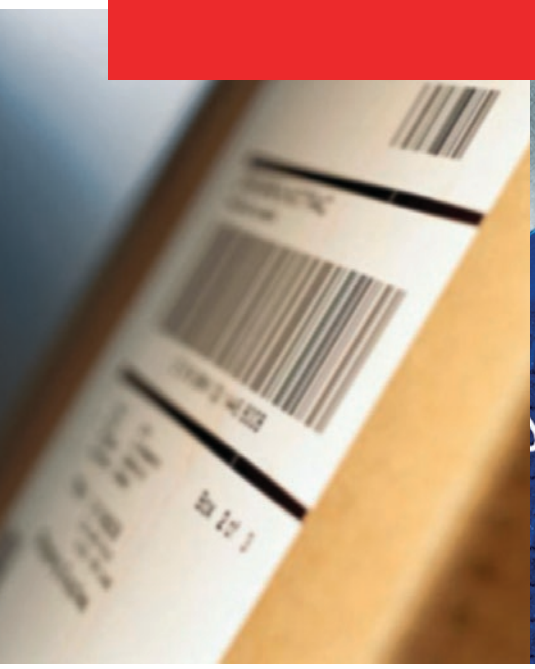
The 2011/62/EU Directive on falsified medicines is mandatory and aims to prevent the entry of these products into the supply chain. This Directive concerns pharmaceutical manufacturers, active ingredients manufacturers, importers, packers to third parties and wholesale distributors of medicinal products within the EU.

Prescription drugs must therefore include unit item serialization as an individual single number that can be read by human eye and data readers, using a 2D bar code Data Matrix, be equiped with systems of identification and authenticity in their outer packaging and be tamper-proof.

Macsa offers ideal solutions for encoding blisters, cases, boxes and pallets as laser coders, large characters high resolution ink jet technology (LCP), small thermal inkjet (TIJ) and labelling solutions such as print&apply.

The 2011/62/EU Falsified Medicines Directive (FMD) is mandatory since 2016 and aims to prevent the entry of falsified products.

Macsa id a code you can trust · ADENTS · Laetus



"I need a laser that can consistenly deliver the print quality that my customers demand."

Anthony Micallef
Packaging Manager Simonds Farsons Ask Plc
Malta

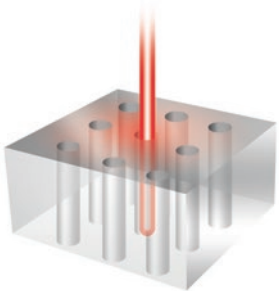
HPD SERIES

Lasers for pre-cutting, cutting and drilling

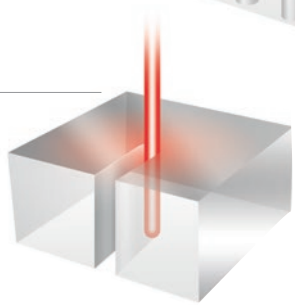
HPD SERIES

Powerful and high performance CO2 lasers for pre-cutting, cutting and drilling plastic materials, and for high-resolution marking.

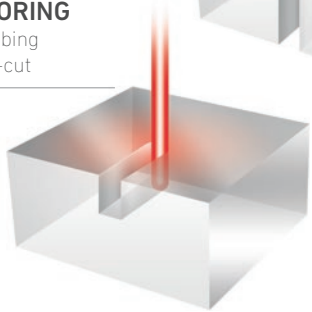
LASER
PERFORATING



LASER
CUTTING



LASER
SCORING
Scribing
Pre-cut



The HPD series is a range of powerful and high performance CO2 lasers. They have a very high power density, which makes them effective in cutting and drilling aluminium films and other materials, in marking high resolution images on a variety of non-metallic substrates and in coding difficult substrates.

This combination of cutting and coding makes the lasers suitable for being integrated into molding, filling and sealing equipment or similar where cutting and batch coding are required.

Macsa has developed lasers for more than 20 years, and this experience has been used to design the HPD series with Macsa component suppliers, who are also part of the industry. This has allowed the best product development of its kind.

HPD lasers are easy to install and integrate. They are fully enabled for use on the network and equipped with an internal computer, which makes it unnecessary to use an external PC. They are also easy to use: they work with Marca software to code, mark and cut precisely and consistently.

POWER RHYTHM PRECISION

HPD SERIES **IS POWERFUL**

The HPD series lasers are equipped with a high quality beam expander with a high power density.

HPD SERIES **HAS SPEED**

Since HPD lasers are more powerful they reduce the time it takes to drill or code. This effect has been reinforced by the use of long focal length lenses.

HPD SERIES **MARKS WITH ACCURACY**

The HPD series lasers are equipped with a high magnification beam expander and long focal length lenses, so they are able to mark very small areas.

"I want a laser that can easily accommodate the needs of my production line."

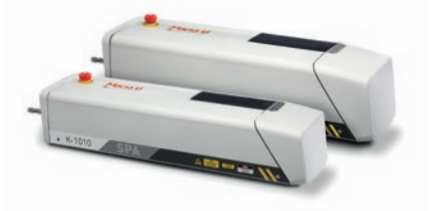
Jozsef Torok
T&L Manager Unilever
Hungary

LASER PACKAGING

The most complete and quickest range in the market

SPARK

The specialist in small character laser coding. It is clean, fast and easy to use. iCON 2 laser by Macsa will reduce your costs in maintenance and consumables to a minimum.



SPA C

CO2 modular laser specialized in coding quickly and reliably.

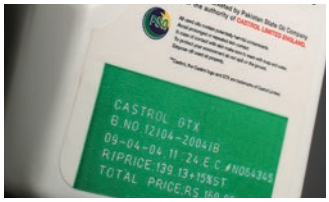
Lasers can be considered to use environmentally friendly technology as no harmful emissions are given off and no consumables are required for their normal operation. Moreover, maintenance is kept to a minimum.

SPA F

SPA F by Macsa ID is a laser specialized in coding and marking a wide variety of materials such as films, plastics and metals.

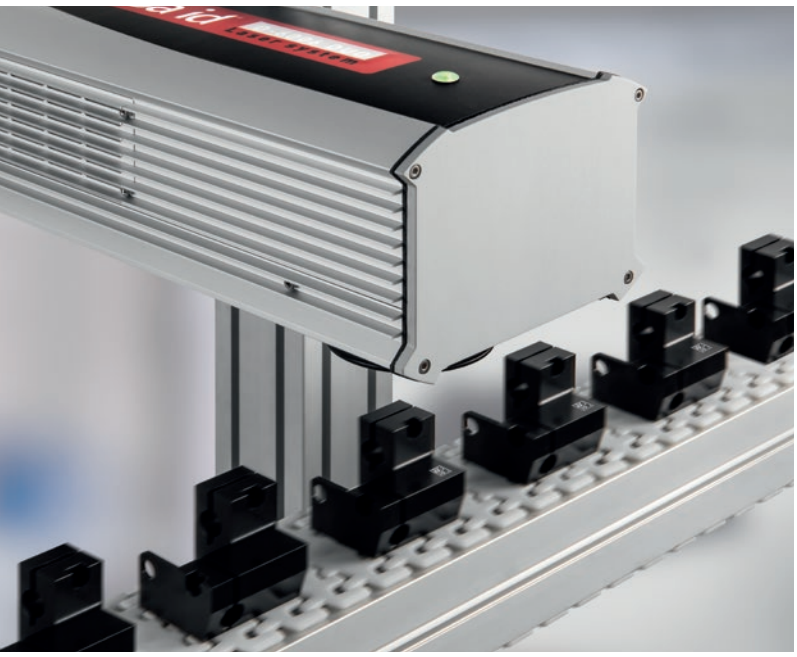
SPA CIP

Reliability in wash down and other wet and dusty environments.



LASER INDUSTRIAL

The widest and most precise range of lasers in the industry

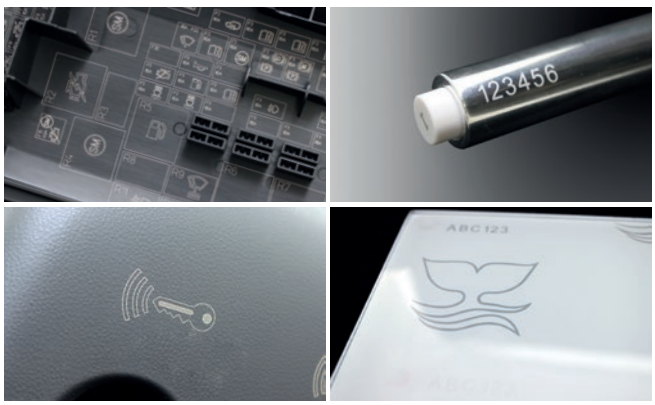


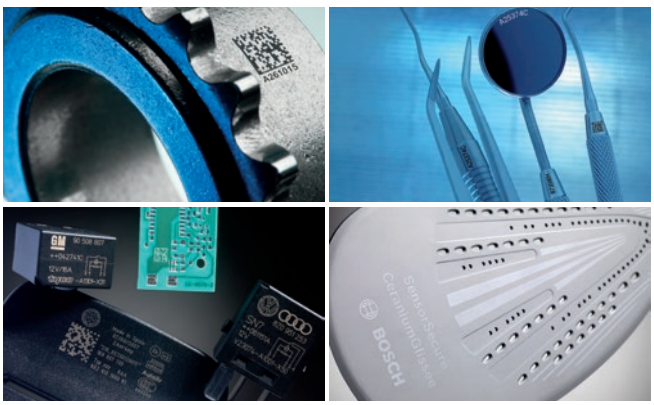
NANO SERIES

Nano DPSS laser is a compact (all-in-one) and affordable laser marking system.

F DUO SERIES

Powerful and reliable industrial Fibre lasers for high precision 2D and 3D marking on metals. This range includes D DUO UV, for delicate substrates, and D DUO Green, for marking with minimal thermal impact.





D DUO SERIES

A family of industrial DPSS lasers for high quality marking on plastics and delicate substrates. F MOPA, for high precision marking, is included in this range.

All these lasers are compatible with the iLaserBox range workstations.

ILASER BOX 450

A fully featured benchtop laser marking workstation designed for operation with the F Series and D Series range of Macsa lasers.

ILASER BOX 600

A fully featured benchtop laser marking workstation designed for operation with the F Series and D Series range of Macsa lasers.

ILASER BOX 1000

A floor standing workstation that has been designed for both seated and standing operation. The workstation is fully compatible with the F Series and D Series range of Macsa lasers.

LABELLING

The most complete range of Print&Apply solutions

idBLOCKS

idBlocks is the most versatile Print&Apply Labelling range on the market. It has a compact and modular industrial design and high reliability, and is resistant to harsh working conditions.

idBLOCKS PALLET

The idBlocks Pallet labelling system has a compact industrial design to work in the most adverse conditions and on high speed production lines.

LCP

High resolution large character for industrial printing

TIJ

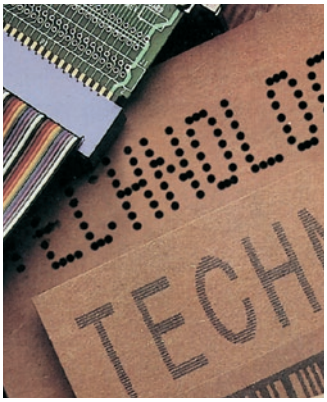
Thermal inkjet printer for high resolution printing

idJET COMPACT

It is capable of printing on all types of materials such as iron, tin, aluminum, wood steel, polystyrene and cardboard boxes.

idTIJ

It is an easy system to use, very clean and also consumable change is very simple.



Macsa ID Aftersale Service

We think globally and we service locally

Our concept of service support with the highest level of expertise, acting both directly and through a wide network of technical services through official Macsa distributors, offers:

Installation and commissioning services	We provide you with the planning, installation and commissioning of the equipment, as well as all the necessary information for operation and security.
Remote Services	Expert help via the internet; if you need support with your equipment, we can establish direct connection to it to diagnose and solve any problem. We are also able to monitor the equipment periodically.
Technical Assistance Services	We provide a fast and satisfactory resolution to problems that have arisen in all Macsa equipment and solutions through our dedicated field service technicians.
Spare parts & consumables	Through the official technical services and Macsa distributors we supply original spare parts and consumables, guaranteeing the reliability and safety of the components used.

With the aim of providing a global solution to the needs of each client, Macsa also offers a commitment of integral service through the number of maintenance contract options:

Warranty Extension	Support materials for equipment for a period longer than the factory warranty, which will help protect your investment according to your business plans.
Preventive Maintenance	Carrying out those operations and work that must be carried out with a certain periodicity to control the correct functioning of the equipment, to prevent its deterioration and to reduce the risk of occurrence of possible problems.
Integral Maintenance	This contract establishes a commitment of repair and management including both labour and spare parts, and the periodic supervision of the state of the equipment.

In a world of dynamic markets, quickly advancing technology and fast-changing trends, it is essential to keep Macsa technical services and customers up to speed with those changes.
We offer:

Training Services	Macsa engineers' expertise in the different technology of marking and coding will transmit all the necessary technical knowledge to be able to operate and obtain the maximum performance of the equipment.
Consulting and technical assistance	Macsa has a multidisciplinary team of consultant engineers involved in the project from analysis to installation. They possess a wide experience and knowledge at a high level in all the disciplines that are included in the development (automation, mechanics, materials, software etc).
Laboratory Samples	We have at your disposal a laboratory with all the equipment and technologies of coding and marking of Macsa prepared to carry out your samples, and thus find the solution which best suits your needs.

"I prefer to work with suppliers who have a clear and visible ethical policy including a responsible approach to the environment, and their employees and other stakeholders."

Fernando Prieto
Managing Director Pritech
Brasil

LABORATORIOS ESTEVE

Laboratorios Esteve is an international pharmaceutical chemical group that focuses its efforts on innovation and excellence in the health field.

Founded in 1929 by Dr. Antoni Esteve i Subirana, it has established itself as a leading business group in the health field through medicines and the active principles of fine pharmaceutical chemistry.

They required a machine to code the medicines' boxes: cardboard boxes with a layer of paint neither plastic coatings nor special protections.
In each case, according to current IMF regulations, a 2D identification code and four lines of text should be performed at a speed of 400 cases per minute and providing at the same time a high-resolution mark.

ESTEVE decided to integrate a different laser concept into its production lines: the F-9050 Ultra High Speed (UHS) film, a FIBER machine with a power from 20 to 50w with high speed scanners and mirrors engines, that can perform high quality markings even working at very high speed.

Thanks to the fiber laser choice, ESTEVE has achieved a remarkable improvement in different aspects. Not only has it tripled the resolution and speed of its coding with respect to the old CO2 laser marking, but it has also increased the quality and safety of its products, since the new fiber system does not deteriorate the surface of the material.

UNILEVER

Unilever was born in 1930 as a result of the merger of the Dutch company Margarine Unie and the English Lever Brothers. Unilever brands are part of our day-to-day life, with more than 400 brands in 14 categories of products for home, personal care and food markets. Sunlight Soaps began importing in 1888. Some years later, in 1933 Lever Brothers joined them and forgether they founded Hindusfan Lewer Ltd in 1956.

The Unilever headquarters in England and the Netherlands decided that Unilever worldwide should adopt the laser as a marking and coding system. That is why Unilever India contacted Macsa to replace its inkjet systems.

They needed to mark on their products the batch number and the date on the film covering the wrapper of the soap tablets in a production line that worked at 30m/min. The Macsa K-1030 PLUS CO2 laser could mark on the black surface of the film, producing an excellent marking contrast without damaging the material.

Before deciding on our equipment, Unilever studied the offers from different suppliers. Finally they chose Macsa because of the high quality marking of its lasers, the great reliability of its systems and the excellent service it received from the company.

ABB

ABB is a leading company in electrotechnology and automation technology that collaborates with industrial customers and basic services companies to improve their performance while reducing their environmental impact.

In ABB Spain's engine assembly line, the identification plates marking was carried out by microperforation equipment obtaining low quality impression and with results too slow for the speed of the production line.

Macsa recommended that ABB installed a workstation that would perform all the manipulation functions for marking the plates. This is done using a F9010 10W fiber laser in static mode to mark the engine's electrical characteristics and serial numbers.

NESTLÉ

The Swiss multinational Nestlé chose in 1905 the Cantabrian town of La Penilla to install its first factory in Spain. Almost half of the production is chocolate, 32% Nesquik and 68% child nutrition.

Before adopting the laser for marking, different series of inkjet equipment from competitors were used. Nestle calculated their costs of equipment ownership, consumable costs and both preventive and corrective maintenance. They concluded that a solution based on Macsa lasers would lead to lower costs while increasing production line efficiency.

The marking was to be carried out at a speed of 250 strokes/minute on the wrapping paper chocolate decorated with vignettes of different chocolates. Depending on the workload of the line, it would work up to 24 hours a day, including Saturdays and Sundays.

Nestlé's standard lots would be marked in 2 lines: the first for the preferred consumption date, indicating month and year in 4 digits plus hour and minutes, and the second for the lot with 9 digits.

Following the test, Nestlé considered that Macsa was a supplier that guaranteed the supply of high quality equipment with the necessary productivity for its manufacturing line and with equipment which was easy to integrate. Macsa carried out an impeccable installation in Nestle's facilities and a fast and efficient after sale service.

ROBERT BOSCH

Robert Bosch Spain S.A. produces car horns for automobiles and motorcycles and manufactures for the main automotive brands: Mercedes, PSA Group, BMW, Renault, Honda, Nissan, etc.

Before contacting Macsa, Robert Bosch used inkjet systems but wanted to replace them with lasers to avoid the high costs in consumables, dirt and contaminant waste.

Robert Bosch wanted a marking and coding laser capable of printing on horns made of plastic and metal as well as solving other problems with ink marking, heat, humidity and vapor condensation of the motor that erased the marking. The same happened in the Nordic countries because of the salt used to circulate on icy roads.

Robert Bosch found another benefit to coding and marking lasers: they could mark different parts of the piece, regardless of the color of the surface, unlike the inkjet system that faded on black surfaces.

The entire transport line of the plant was robotic and the production line had to mark 30 pieces per minute (approx. 0.3 sec/piece). Macsa lasers could encode the customer's logo (BMW, Chrysler, AUDI, etc.) on the horn and a 5 or 6 digit internal code guaranteeing a powerful and permanent marking.

MARQUÉS DE RISCAL

Marqués de Riscal is a innovative, pioneering and leading winery in the food and drink industry with a long tradition.

Marqués de Riscal asked Macsa to find a labelling system for its bottles that would make it easier to identify its production and guarantee the traceability of each and every one of them.

Macsa had the challenge of designing a new marking system based on printing on the back of the bottle rather than on the back of the label as had been done previously. To do this, the Macsa Laser K1030HPD is currently used to mark the glass with a 6mm three-digit number directly and with the required quality. The number identifies the batch and the pallet to which the bottle belongs. By using a 250x250 lens which covers the entire box surface, all the bottles in it can be marked at the same time.

Macsa has also installed software so that once the marking all the bottles of a pallet is completed, the marked number is increased by one digit automatically.

The solution installed by Macsa thus fulfills the two objectives posed by the winery. It enables the traceability of each bottle: the batch, the production date and from which distributor it came. It does so without stopping production so saving time and gaining efficiency.

CODING, TRACING AND MARKING SOLUTIONS WORLDWIDE

T. 93 873 87 98
macsa@macsa.com
www.macsa.com

Macsa ID Headquarters
P.I. Pla de Santa Anna
08272 Sant Fruitós de Bages
(Barcelona)
Tel: +34 938 738 798
Spain

Macsa ID UK
13d Old Bridge Way
Shefford
Bedfordshire
SG175HQ
+44 (0)1462 816091
UK

Macsa ID Portugal
Rua Eng. Frederico Ulrich n. 2650.
4470 - 605 Moreira Maia
Tel: +351 229962204
Portugal

Macsa ID Malaysia
E-8-03, The Gamuda Biz Suites
No.12, Jalan Anggerik Vanilla 31/99,
Kota Kemuning,
40460 Shah Alam
Selangor
Malaysia

Macsa Coding Technology (Shenzhen) Co, Ltd
East side of 2/F, 7 Building
Lijincheng Technology Industry Park
Jihua Road
Longhua Street, Longhua District
518100 Shenzhen
Tel: +86 0755-23611591
China