

One supplier for all your marking needs

INDUSTRIAL

MARKING AND PRODUCT IDENTIFICATION

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English Version

Milestones

The product range has constantly been enlarged. New systems like pad print, dot peen, laser and inkjet systems were developed during 1989-1997.

At the same time branch offices were established in Switzerland, Singapore, France and the USA.

At the company headquarters in Solingen, a modern research, distribution and production centre was established to continue the development of hardware and the company's own software for the control systems.

The Östling Group now offers marking systems for almost any product.

**Over the years our company has achieved something that cannot be bought:
Experience and Expertise.**

Today we look forward to a great future with you!

- 1968** Companies foundation by Rolf Östling during his studies in Stockholm, Sweden. Development of a machine for electrolytic marking; the first customer: Sandvik
- 1978** Move from Sweden to Germany and establishing of ÖSTLING Vertriebs GmbH for distribution of the marking systems which were manufactured in Sweden
- 1988** Rename to ÖSTLING Markiersysteme GmbH
- 1989 - 1993** Development of a pad printing machine for marking of ceramic tools; Development of a dot peen system
- 1998** Set-up of Östling research department for the construction of own industrial control systems, specially designed for the demand of product marking
- 2002** Integration of vision systems for automatic scanning of markings and labels, for example 2D codes (Data Matrix™)
- 2005** Development of a dot peen system for the hardest industrial environments (protection class IP65) with an integrated control system - Pinmark Intelli
- 2006** Introduction of the compact and flexible stand-alone laser marking station - Rondo
- 2010** Development of the Laser System LasOnAll XS which provides a compact and extremely powerful laser marking on (almost) all surfaces
- 2011** Introduction of the Lasebox - The compact "Ready to mark" Laser marking station

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Electrolytic marking

Economic and permanent marking

The electrolytic marking system is based on a chemical etching process where the image on a stencil is transferred to an electrically conductive product by the action of electrolyte and electricity. The chemical etching process has the advantage of being easy to use and inexpensive, while still giving a high-quality mark.

Depending on the material and the current, the results are black, white or deep markings - without corrosion or other negative effects on the material. The graphic design options are unlimited.

We offer a large number of different ÖSTLING electrolytes which ensure a high-quality marking.

No acids or other dangerous substances are used!

Advantages of the ÖSTLING electrolytic systems:

- ▶ Individual graphic design of the templates, e.g. company logos, item numbers, or decorative marking
- ▶ Even large areas can be marked quickly
- ▶ For the most varied surface shapes, such as flat, round, concave, convex...
- ▶ Easy to adapt to your needs due to our modular product range



Typical application areas:

- Tools
- Medical instruments
- Cutlery
- Fittings
- Ball bearings



Electrolytic control unit



Semi-automatic marking system



Typical application areas:

- Entire automotive sector • Mechanical engineering
- Metals and plastics for the aerospace industry
- Special mechanical engineering • Data Matrix • ID plates

Pin Marking

Tamper-proof, durable, flexible ...

With our PinMark™ Dot Peen marking systems, the mark is created by vertically oscillating a carbide indenting pin, which can be moved along the x and y axes using two stepping motors. This results in a dense series of points, forming an uninterrupted line.

With our PinMark™ marking systems, products with a wide variety of shapes and materials can be permanently and economically marked at high speed. Any text, figures, symbols, or logos can be reproduced. Text can be positioned at any angle or on a curve.

Our Dot Peen systems have been used successfully for many years in the aviation, tooling, automotive, and steel industries. Special characters like digits, logos and 2D codes (Data-Matrix™) can be marked as well.

Strengths of the ÖSTLING PinMark™

- ▶ Permanent marking on several kinds of materials and shapes
- ▶ Benchtop, handheld, combination and integration models available
- ▶ High marking speed
- ▶ For the most varied surface shapes, such as flat, round, concave, convex...
- ▶ Easy to adapt to your needs due to modular product range



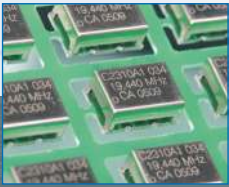
Hand held PinMark™



PinMark™ Control system



Benchtop device with rotation axis



Typical area of application

- Tools
- Ball bearings
- Metal parts for the automotive or aviation industries
- Plastic products and components for household products
- High precision micro-encoding of medical instruments
- Decorative markings on promotional items and brand name products

Laser marking

High flexibility with superior quality

Our laser marking systems offer many advantages for manufacturers looking for a product marking solution. Lasers provide superior high-resolution marking, easy set-up, speed and versatility.

Laser marking is a non-contact process. This reduces part fixturing costs, creates less component stress and eliminates additional wear on your machinery. Lasers do not require any consumables for marking, which keeps running costs to a minimum.

What can laser marking do for me?
The laser marking process can mark a variety of materials, surfaces and composites. The depth of the marking can be easily controlled. This allows fine delicate marking as well as more aggressive forms of industrial marking. Our laser marking systems interface with a wide range of external devices, allowing the complete control of your marking environment. Abolish errors of the operator by a complete automation of your manufacturing process.

These marking applications are possible with laser marking:

Engraving

A recess is engraved on the workpiece by laser beam. The material vaporizes or melts during this process. The marking depth can be up to 50 µm. In the range of the design, the possibilities are unlimited.

Material abrasion

This is a special form of engraving. In the case of aluminium, an anodic coating, for example, can be removed in order to reveal a different coloured layer beneath it.

Colour change / Annealing colours

Here the heat of the laser beam and the atmospheric oxygen change the colour of the metal.

There is no significant material abrasion. The laser beam penetrates max. 5 µm into the material.

Heat application on plastics

Due to the heat of the laser beam, the plastic is thermally disintegrated at the laser beam's point of impact. This results in gaseous decomposition of the material, the marking appears as an indentation.

Advantages of ÖSTLING marking lasers

- ▶ High flexibility with superior quality
- ▶ Extremely long service life of the laser diode
- ▶ No cooling system necessary, compact and light construction
- ▶ User-friendly ÖSTLING software under Windows 2000/XP/VISTA

OEM models and complete solutions are available

Adaptable to your needs by our in house engineering dept.



XL-technology in an XS-size

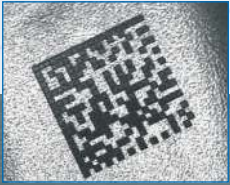
*Laser marking system **Lasonal™ XS***



Accessories: lenses



Accessories: rotation axis



Two-dimensional Data Matrix™ codes (2D codes)

2D-Code (Data Matrix™) – Readers and Cameras

Read data reliably even after many years...

Directly applied 2D codes are read out with the help of handheld scanners as well as via fixed camera systems. The handheld system is also available as a practical wireless Bluetooth version.

Codes applied by Laser, PinMarker or Electrolytic etching are securely recognised even in the most difficult industrial environments.

With the two-dimensional Data Matrix™ code (2D code), the information density per surface area can be considerably increased in comparison to one-dimensional barcodes (1D code).

Data such as: serial numbers, employee data, date, time, batch numbers, material composition, suppliers etc. fits into a single Data Matrix™ code.

Particularly in future-oriented sectors with a great deal of research activity, clearly identifiable individual components help to achieve lasting success. Defective components can be identified and replaced more quickly.

Advantages of the ÖSTLING 2D code cameras

- Highest selection rate, even with reflective surfaces and low-contrast markings
- Compact and robust construction
- Target indicator
- Ergonomic design
- User-friendly Windows interface



Hand held scanner



Fixed camera system



Service

Fast, reliable and flexible

We consider ourselves your partner in building and maintaining marking solutions perfectly suited to your needs.



ÖSTLING Markingsystems

Available around the world ...

Our worldwide sales network consists of ÖSTLING subsidiaries and numerous highly qualified commercial agencies.

Through regular in-house training seminars, we constantly keep the expertise and knowledge of our partners up to date, which means we can provide qualified service and support to locations around the world.

The following list does not contain the representatives. We would be pleased to put you in touch with the agency for your market.

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