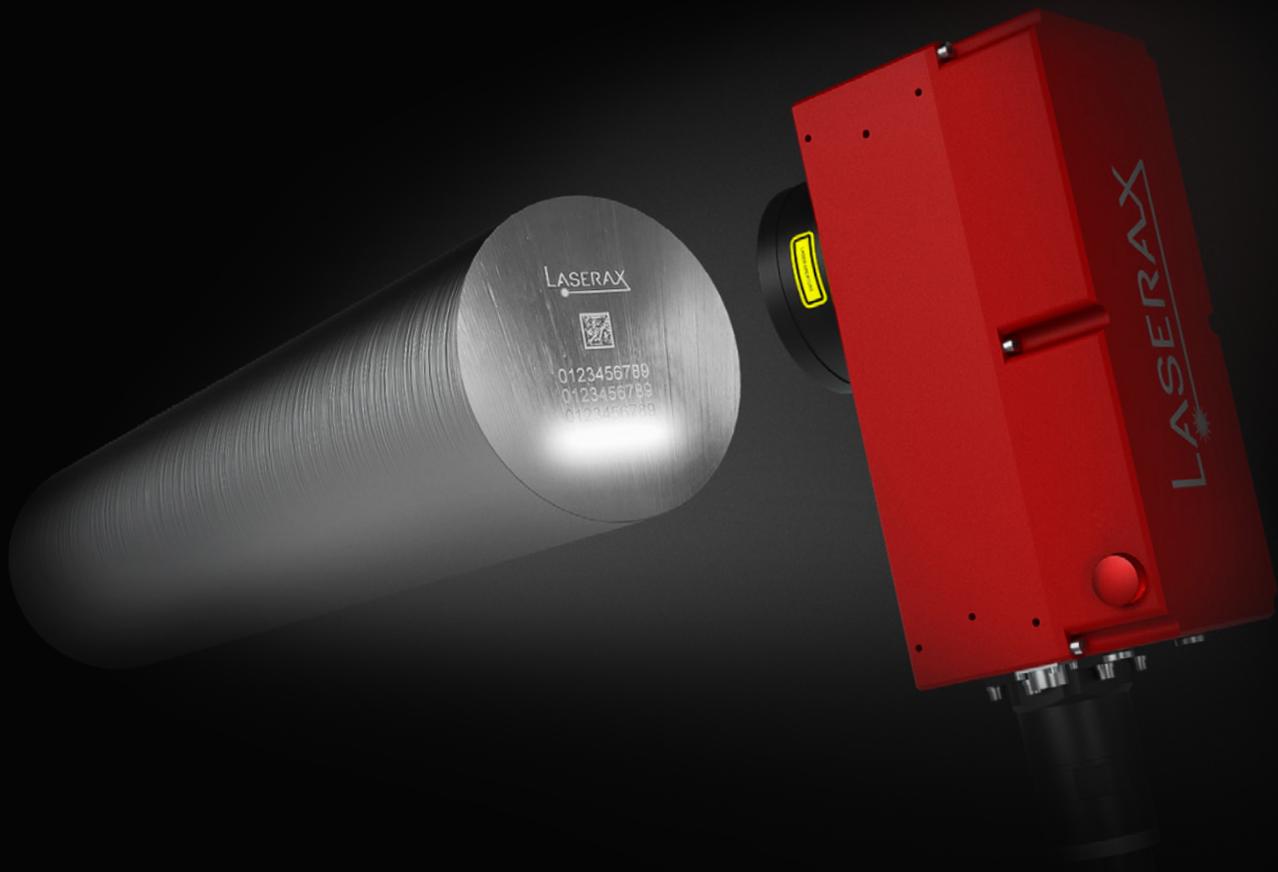




INDUSTRIAL LASER SOLUTIONS

FOR THE PRIMARY METALS INDUSTRY





LASERAX IS A MANUFACTURER OF LASER SYSTEMS THAT PROVIDES FAST, RELIABLE AND SAFE SOLUTIONS FOR THE MOST DEMANDING INDUSTRIAL APPLICATIONS. LASERAX RELIES ON LASER TECHNOLOGY EXPERTS TO OFFER A COMPLETE RANGE OF PRODUCTS FOR LEADING-EDGE MARKING AND CLEANING APPLICATIONS IN THE PRIMARY METALS INDUSTRY.

WORLD LEADER IN LASER SOLUTIONS FOR TRACEABILITY



In the primary aluminum industry, part traceability protects manufacturers, buyers and sellers by providing a set of authentic and valid data.

By marking each individual product with a batch number, the information can be narrowed to a specific batch or production process.

Laserax's laser technology is the most widely used marking solution to permanently identify and guarantee the origin of sustainable aluminum.

We are proud to work with leading primary aluminum producers around the world to drive a meaningful change for product transparency and sustainability.

APPLICATIONS FOR THE ALUMINUM INDUSTRY



ALUMINUM BILLETS

Serialize products and accurately identify billets to automate extrusion process and meet new extrusion requirements from major automotive OEMs.



ALUMINUM SOWS

Stop spending on expensive labels that fall off. Laser etch a high-definition identifier label directly on the sow's surface to obtain foolproof traceability and inventory management.



ALUMINUM INGOTS

Ensure heat resistant traceability with laser marking and unlock industry 4.0 features with individual ingot serialisation and bundle automated labeling.

LASER CLEANING TO REMOVE OXIDES

Laser cleaning offers possibilities that were previously nonexistent. One of them is **oxide removal**, which is a highly sought-after process by metal smelters. Whereas abrasive blasting methods tend to remove too much material, laser oxide removal leaves the base material completely intact, minimizing material loss. For expensive alloys, this results in a huge return on investment.



BENEFITS OF LASER MARKING

PERMANENT MARKING

Laser marking locally changes the surface morphology of metal, ensuring a permanent identification on any alloy. The markings are resistant to aging, high temperatures, heavy salt spray testing and intense UV exposure.



HIGH CONTRAST AND EASY-TO-READ BARCODES

Laser marking offers the best contrast to ensure perfect legibility for vision systems, handheld scanners and the human eye.



CUSTOMIZABLE HD LABELS

Enjoy real-time configuration of the identifiers. You can customize engraved information based on your customer's unique requirements.



LOW OPERATIONAL COSTS

Using focused light to engrave the metal, laser marking is consumable-free and has minimal maintenance costs.



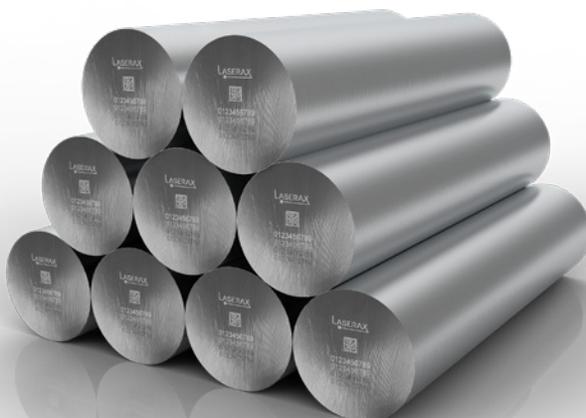
HEAT RESISTANT LASER SYSTEMS

Lasers allow you to mark directly on hot products as they cool off. This allows you to perform the marking operation early in the production process to achieve complete traceability.

LASER MARKING EXPERTISE FOR SMELTING PLANTS

To address tough conditions in smelting plants, we've developed robust solutions that can withstand heavy dust and high temperatures as well as keep up with short cycle times.

Permanent and packed with information, identifiers will maintain traceability however challenging the environment may be. Our lasers can engrave durable markings on all types of surfaces, including rough & curved ones, as well as surfaces with water or cutting oil on them.



- ✓ FASTEST MARKING
- ✓ HIGH POSITIONING TOLERANCE
- ✓ HEAT-TREATMENT RESISTANT
- ✓ AUTOMATED SOLUTIONS
- ✓ INDUSTRIAL-GRADE EQUIPMENT
- ✓ CLASS 1 LASER
- ✓ NO CONSUMABLES
- ✓ LOW MAINTENANCE

LXQ AND LXQ HP SERIES - FIBER LASER MARKERS

The LXQ is a unique fiber laser marking system designed for quick integration in all types of production lines. Offering unmatched speed and reliability, it is ideal for metal marking applications. It can create permanent marks including data matrix codes, QR codes, serial numbers, alphanumeric characters and logos.

The LXQ provides the best marking results on metals and can meet all types of cycle times with up to 500W of power. It allows you to mark any geometry, compensate for bended parts, and mark at a 45° angle. It is widely used in the automotive industry.



LXQ 3D

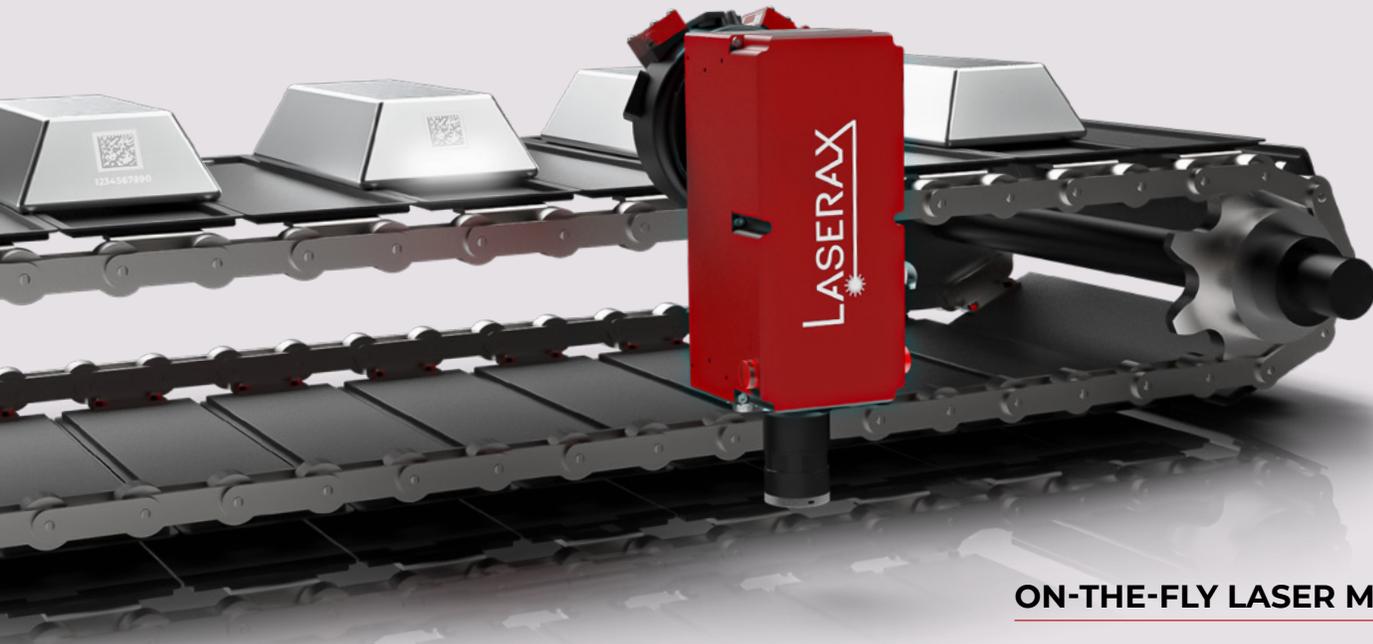
3D LASER MARKER WITH ADJUSTABLE FOCUS

- ▶ Up to 500W optical power
- ▶ Marks curved, tilted and multi-level surfaces
- ▶ Standard 140 mm depth of focus
- ▶ A laser mean time between failure (MTBF) of up to 100 000 hours



STANDARD SOLUTIONS AND OEM SYSTEMS FOR INLINE TRACEABILITY

Our product offer for the metals industry includes a range of standard laser marking solutions that can be integrated directly in your production lines. As a manufacturer of OEM systems, we also work in close partnership with the most renowned specialized equipment providers in the smelting industry.



ON-THE-FLY LASER MARKING

Our turnkey machines and OEM systems can be used to perform “on-the-fly” marking where individual ingots are marked as they move on a conveyor. This allows you to integrate laser marking into your production line without slowing down operations.



STATIC LASER MARKING

A marking station can be installed where parts are stopped for weighting, stacking or unmolding so that laser marking is performed in hidden time while waiting for another operation.

A GLOBAL PRESENCE

SYSTEMS IN OPERATION AROUND THE WORLD

LASERAX HAS LASER MARKING SYSTEMS IN OPERATION IN MAJOR ACCOUNTS ACROSS THE GLOBE, MAINLY IN THE PRIMARY METAL AND AUTOMOTIVE INDUSTRIES.



LASER SAFETY

Our technical team includes certified laser safety officers dedicated to providing assistance with compliance to the international safety standards IEC 60825 and ANSI Z136.1.

LASERAX's safety experts also provide the following services:

- ▶ Design assistance for system integrators and other machinery manufacturers
- ▶ Class 1 laser safety certification
- ▶ On-site staff training

TECHNICAL SUPPORT

We are committed to providing impeccable technical support to system integrators, end users and other machinery manufacturers.

LASERAX's certified laser safety experts provide:

- ▶ On-site support and training
- ▶ Feasibility studies
- ▶ Laser system commissioning
- ▶ System upgrades and configuration



laserax.com

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PRIMARY METALS INDUSTRY**

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