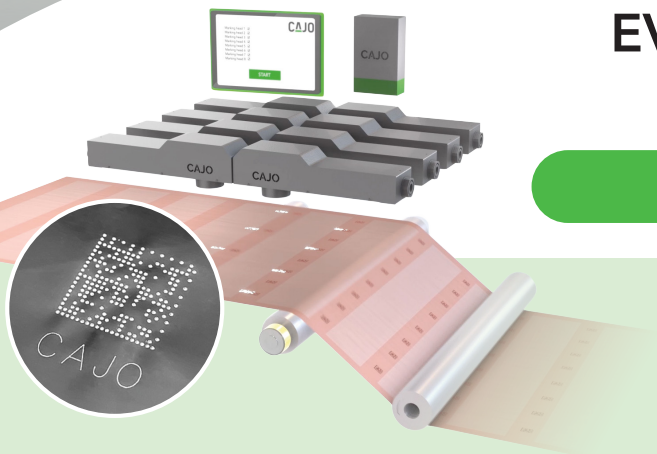


SUSTAINABLE SOLUTIONS FOR EV BATTERY MANUFACTURING

FULL ELECTRODE LEVEL TRACEABILITY



ELECTRODE LEVEL TRACEABILITY IMPROVES YIELD IN LITHIUM-ION BATTERY MANUFACTURING

High-speed on-the-fly 2D laser marking of electrode foil enables full traceability in battery manufacturing. The combination of process data and individual electrodes gives an unforeseen insight into the manufacturing process to sustainably improve yield and minimize scrap. The outcome is better quality and safer batteries for the end-users.

The flexible marking solutions of **Cajo Technologies Ltd.** enable the smooth installation of laser marking systems on both new battery production lines under construction and pre-existing EV lines. In addition to increased yield

and minimized scrap, the full traceability offered by Cajo lasers prevents issues with battery safety.

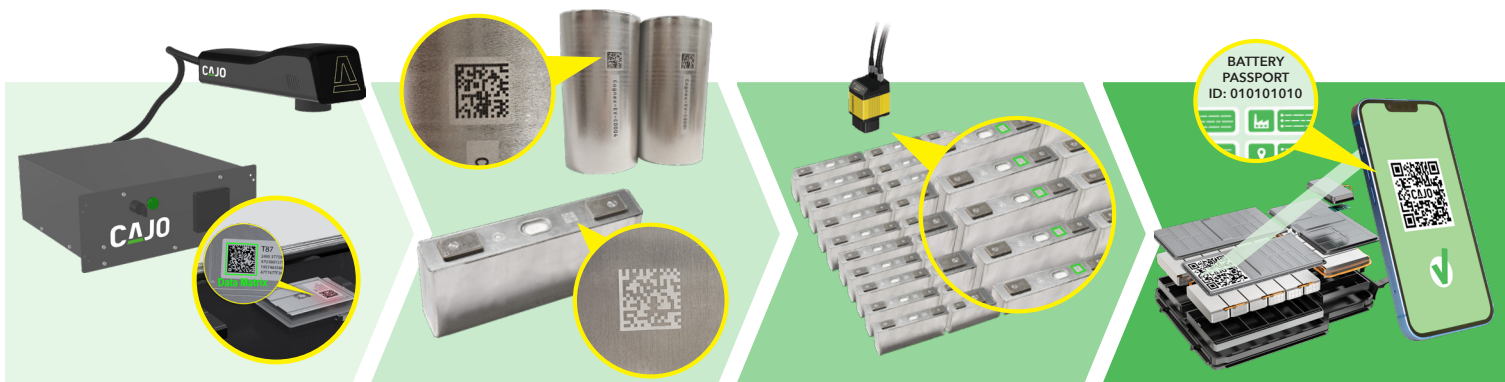
Any necessary retrofitting is completed accurately and efficiently by our skilled technical experts according to the customer's needs.

CAJO LASERS SUPPORT COST-EFFICIENT AND SUSTAINABLE BATTERY PRODUCTION PROCESSES

The European Union has released extensive legislative proposals to create a legal framework for the **sustainability, traceability, and circularity** of battery production throughout a product's life cycle.

Cajo Technologies is an expert in laser marking that can meet and even exceed strict international standards with sustainable solutions for full traceability. Cajo can provide **direct product marking** for batteries, cells, and modules.

Choose Cajo for intelligent product marking.



MARK

READ

VERIFY

DATA COLLECTION
AND ANALYSIS

CONTACT INFORMATION

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CAJOTECHNOLOGIES.COM



FAST AND SUPERIOR TRACEABILITY MARKINGS WITH DEDICATED SOLUTIONS

CAJO HERCULES FOR FOIL MARKING™



- Cajo's turnkey, Laser Class 1 solution for traceability coding of EV batteries
- Precise & permanent 2D codes and markings for coated and uncoated aluminium and copper foils
- High-speed marking on the fly over 200 m/minute
- Includes multiple Cajo Tailor™ units with synchronized control per customer need
- Each Cajo Tailor™ can mark over 20 unique data matrix codes per second for maximum efficiency
- Seamless MES integration for Industry 4.0 and expertise via Cajo Support
- Encoder for speed measurement
- Embedded software CajoSmart™ with user-friendly HMI control panel
- Automatic code verification
- Ideal solution for smart factories
- Cajo Hercules™ can be customized according to customer requirements for example for foil width, electrode type, marking placement, etc.

90%

REDUCTION OF
CARBON FOOTPRINT OF
INDUSTRIAL LABELLING



HIGH-QUALITY, PRECISE AND
PERMANENT MARKINGS



FAST MARKING ON THE FLY
FOR MASS PRODUCTION LINES



SUSTAINABLE TECHNOLOGY
WITHOUT ADDITIVES



SYNCHRONIZED CONTROL OF
MULTIPLE MARKING HEADS



COLLECTION OF PROCESS DATA AND
ELECTRODE LEVEL TRACEABILITY



CONTINUOUS PROCESS OPTIMISATION FOR
IMPROVED QUALITY & PERFORMANCE

TRADEMARK

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