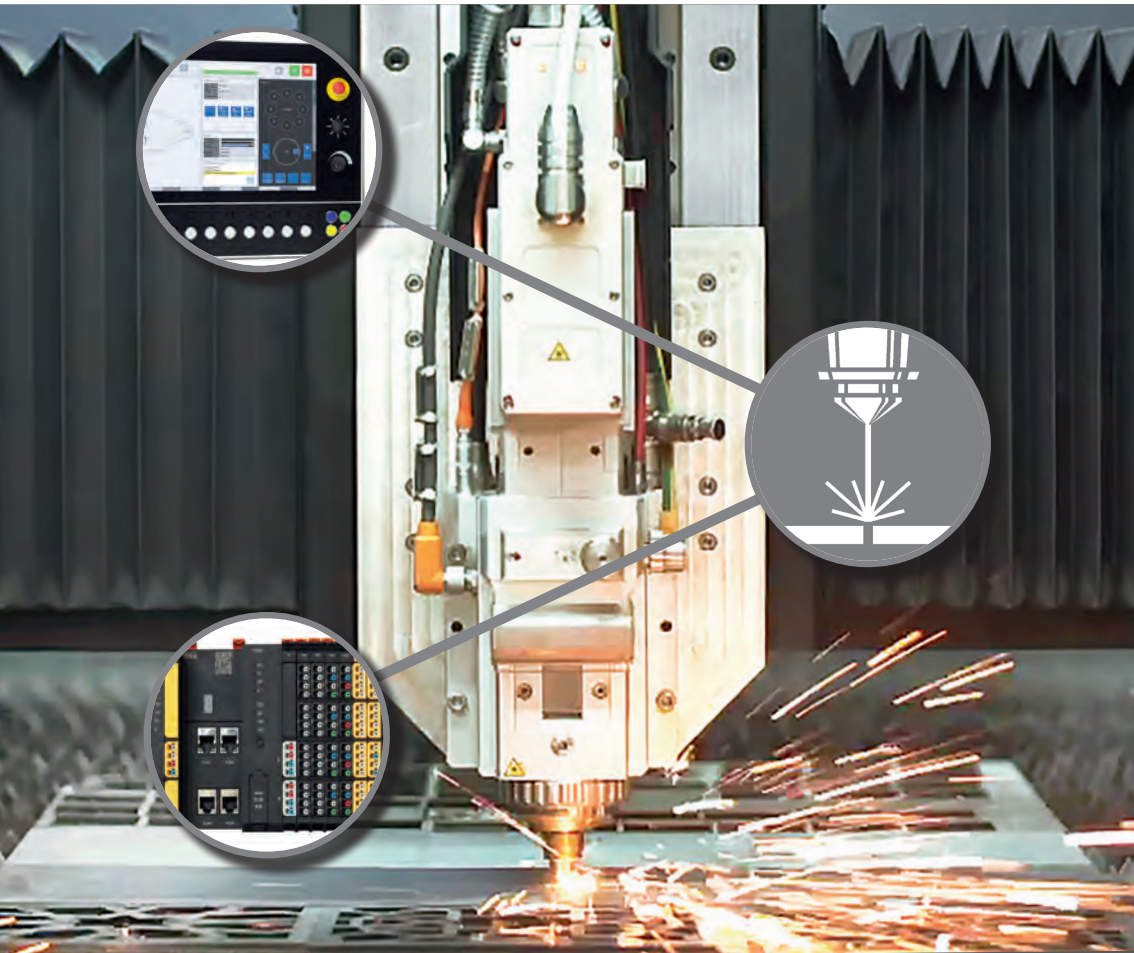




ECKELMANN

The automation package for **Laser Cutting Machines**





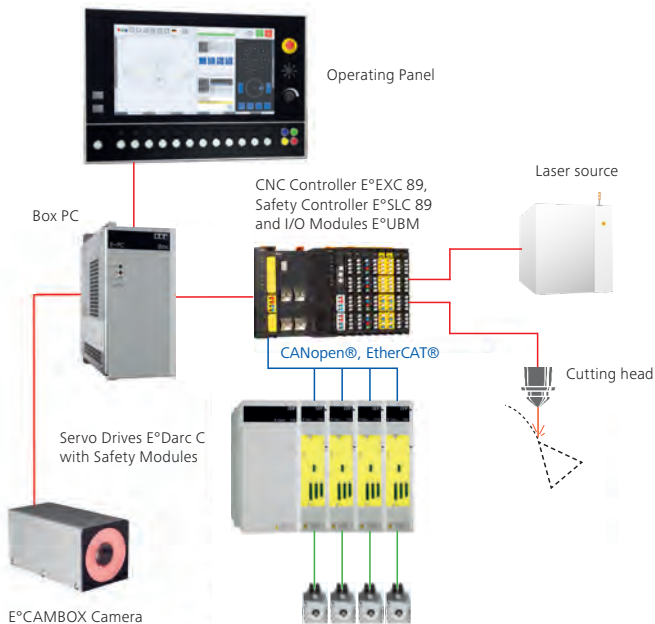
The **laser experience** makes the **difference**

With high-performance and sustainable automation concepts, we create your competitive edge.

We provide all hardware and software components, you need for your machines. From HMI and CNC/SPS/Motion with optional safety functionality to drive systems, our components are perfectly coordinated. They can be used both as a standard system as well **as customized solutions to meet your individual needs in machine automation.**

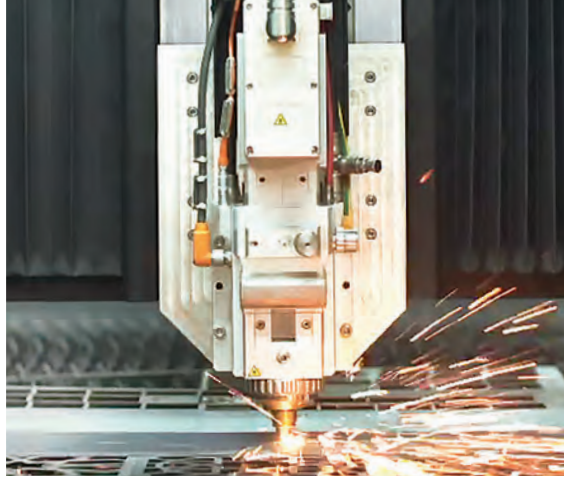
Our controller has been used successfully in laser applications for more than 20 years and continues to be developed further. Therefore, machine manufactures and integrators will benefit from **fast engineering and an open ear for innovative functionalities.**

Machine automation by Eckelmann encompasses: drive technology, control systems, HMI, machine vision as well as seamless integration in our OPC-UA based digital **solutions for Industry 4.0.**





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Main laser functions in Eckelmann's CNC

- ✓ Controlling the cutting components and the cutting peripherals:
 - Laser sources** from IPG, Coherent-ROFIN, SPI Lasers, TRUMPF, nLIGHT® & Raycus Laser
 - Cutting heads** from Precitec, II-VI Highyag, Laser Mech and Rayools
 - Shuttle tables** of varying designs
- ✓ Gas and exhaust air control, nozzle cleaning etc.
- ✓ Interfaces for connecting conveyor lines and sheetmetal storage systems
- ✓ Technology table for **all relevant cutting parameters**:
 - Material thickness, type and quality of material, cutting speed, laser output power, cutting gas type
- ✓ Track speed dependent analogue output and PWM signal for controlling the laser power output:
 - Using the pulse-width modulated output, the laser power can be controlled highly accurately, depending on the material to be processed and the track speed of the guide axes.

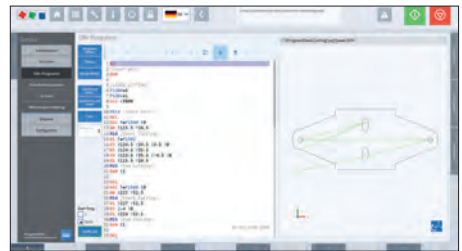
HMI package designed for laser cutting machines

Each Eckelmann CNC comes as standard with HMI Software. Based on this standard, we offer **solutions customized for advanced laser cutting applications**.

A task-oriented and role-specific approach ensures an easy-to-read layout, as only information and operation elements needed by the operator for the current process step are displayed.

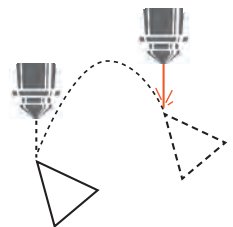
The views shown vary and depend on the role and task of the operator.

- ✓ User friendly and touch optimized
- ✓ **Easy and efficient operation**
- ✓ Intuitive, step-by-step assistance for machine operators
- ✓ Live visualization of the CNC program
- ✓ Immediate response
- ✓ Integrated monitoring of peripheral units like laser sources and sensors
- ✓ Nesting CAD/CAM software on board
- ✓ Optionally UI-embedded **digital twin** and/or machine vision systems
- ✓ Highly customizable



Laser features for increased productivity and quality

- ✓ **Fly-cut** option for significantly shorter cutting times
- ✓ **Frog-jump** function prevents any collision between the laser head and the cut parts and reduces the traversing time to increase productivity
- ✓ Quick **height adjustment** for a very high and constant cutting quality
- ✓ CNC-controlled compensation mechanism for an **optimal laser focus position with directional correction**





Designing the future together

We regard products and support as services for mechanical engineers and offer the full range of future-proof and efficient CNC solutions for laser cutting machines.

Benefit from our long-standing experience in machine automation.

That's what our customers all over the world appreciate.

"Eckelmann is much more than just a full-range supplier for the automation of our laser applications. The CNC control system already supports all important laser-specific functions. This accelerates our engineering while simultaneously giving our engineers the necessary solution reliability. And wherever we are interested in implementing innovative concepts, we are able to contribute our wishes or special requirements for a new feature directly to the further development of the NC. For a supplier of control systems, such a high level of flexibility and expertise in terms of solutions are by no means a matter of course!"

Waiel Alkhouifi, Executive Director at Accumech, Dubai - www.cncaccumech.com

Get to know the advantages of our CNC laser cutting solutions and **visit our new showroom**, which we will open in Germany together with the cutting head from Precitec in February 2020 - www.precitec.de.

Please **make an appointment with us** in advance.



Networked intelligence

machine automation at the Eckelmann Group

We are always there for you – **globally**. With wide-ranging expertise, the experts in machine automation within the Eckelmann Group offer you innovation partnership as equals. If you have any questions, **please contact** us.

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