

SMART CONTROL. SEAMLESS AUTOMATION.

The new laser cutting solution for high performance and maximum operational reliability.

For stable and automated 2D laser cutting processes, the ProCutter 3.0 combines integrated sensor technology with intelligent process monitoring. Relevant process data enables clear machine decisions and supports economical, reliable production.

PROCUTTER 3.0



From process signals to machine decisions

Operational Response Technology combines cutting head and process monitoring to provide actionable information for machine operation.



Process stability for automated laser cutting

Intelligent thermal management, robust high-performance optics and precise sensor technology ensure stable, reproducible cutting processes – even at high laser power and in continuous automated operation.



Modular and future-proof

Smart modules communicate with each other and form a flexible platform for future-proof machine concepts.



Integrated functions

for stable automated cutting processes



FROM PROCESS SIGNALS TO MACHINE DECISIONS

Operational Response Technology

The integrated LightDetect sensor technology of the ProCutter 3.0 provides transparency during piercing and cutting. This supports stable cutting processes and creates the basis for economical automated production. Precitec Operational Response Technology captures relevant process signals and makes them available to the machine control via the CutBox Pro. This turns process signals into actionable machine information – as a basis for clear machine decisions and automated responses to critical process conditions.

Open machine integration and easy connectivity

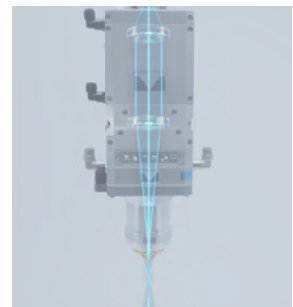
The graphical user interface is the central access point between the cutting head and the machine control. Settings, thresholds and diagnostic functions can be configured conveniently. Current sensor values and historical data support service activities and fast troubleshooting.



PROCESS STABILITY FOR AUTOMATED LASER CUTTING

BeamTec – stable focus at high laser power

BeamTec compensates for thermally induced focus shifts at high laser power. The focus position is precisely adjusted via the CutBox Pro – for more stable processes, a lower risk of cut loss and reproducible high-power cutting quality.



High-efficiency optics for maximum power

The high-performance optics of the ProCutter 3.0 feature a particularly low absorption rate. This delivers more laser power to the workpiece while reducing the thermal load on the cutting head and the cooling demand. It enables more efficient use of high laser power and consistently high cutting quality – even under demanding production conditions.



Distance sensor for reproducible cutting processes

The precise capacitive distance measurement system reliably controls the distance between the cutting head and the workpiece via the nozzle. The original nozzle and ceramic component form the mechanical reference for reproducible alignment with the optical beam axis – for stable processes and consistently high cutting quality.



LED status display

The LED bar indicates the status of the optics, protective windows, cutting gas and focus position directly on the cutting head. Additional LEDs for piercing and cut-loss detection and nozzle temperature monitoring provide the operator with real-time information.



Enhanced cooling concept

A water-cooled aperture system, fully water-cooled sensor insert and actively water-cooled, temperature-monitored nozzle ensure maximum thermal stability – even at the highest power levels.



Collision protection

Defined breakaway screws protect the sensor insert in the event of a collision. In a crash, the sensor insert is disconnected in a controlled manner to protect expensive components from consequential damage and reduce downtime.



MODULAR AND FUTURE-PROOF

Modular design. Universal integration.

Thanks to a universal interface, the smart modules can be installed via plug-and-play. They communicate with each other and provide their stored properties, relevant data and histories. This allows the ProCutter 3.0 to identify its configuration automatically and improves traceability in the field. The CutBox Pro connects the cutting head and the machine – as a standardized, upgradable platform for different machine concepts and future smart features.

The system also reduces variant and inventory complexity and speeds up availability in service cases.



Specifications

Category	Specification
Power level	30 / 60 / 100 kW
Numerical aperture	0.13
Magnifications	M2.0 / M2.5 / M3.0
Max. travel ranges	M2.0: +40 / -45 mm M2.5: +55 / -60 mm M3.0: +70 / -125 mm
Fiber connectors	Q+, LOE-P, LOE-S, LOE-3.1, QP depending on configuration
Sensor technology	Cutting head health monitoring, LightDetect
Interface	CutBox Pro with fieldbus communication (EtherCAT / PROFINET)



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READY FOR THE FUTURE OF AUTOMATED LASER CUTTING?

With the ProCutter 3.0, you choose an intelligent cutting head platform for productive and highly automated 2D laser cutting processes. The combination of integrated sensor technology, reliable process monitoring and fast communication with the machine control creates ideal conditions for stable, reproducible cutting processes, high machine availability and largely unattended production.



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