

BLE PRO

Think Big, We Do.

LASER
technology



Baykal

“

THINK BIG, WE DO.

”

READY 4.0 CHANGE



Baykal

BLE PRO 1530



Baykal





From Past to ***Future***

With a foundation history going back to the early 1950s, Baykal today is placed as a leading manufacturer and global supplier of sheet metal working machinery specializing in the production of press brakes, shears, notchers, punching machines, laser cutting systems, plasma cutting machines, and Vertical Machining Centers.

For its manufacturing operations, Baykal utilizes three factories which together combine a production area of 70,000 square meters, making it one of Europe's largest facilities for sheet metalworking and fabricating machinery. The total workforce at Baykal is currently numbered at 650 employees and is composed of highly trained and qualified machine operators and assembly technicians supported by a staff of 80 engineers. All the machines offered by Baykal are designed, manufactured, assembled, and finished wholly at Baykal's purpose-built plants in a CAD environment with extensive use of CNC machining and modern workshop equipment.

Baykal company is accredited for the ISO 9001 Certification issued by the German TÜV NORD institution. Also, since 1995, Baykal has been building machines in conformity with the European CE regulations for safety, being the first Turkish machine-tool manufacturer certified eligible to bear the CE Mark on its products. In addition, all Baykal products are manufactured with the TSE and TSEK quality certificates issued by the Turkish Standards Institution.

Since the last 50 years, Baykal has progressed to become a major exporter of sheet metal working machines to the world markets with customers located in all the machine-tool consuming countries of the global geography from the Americas to Australasia. Baykal is currently represented in over 100 countries worldwide through appointed dealers. In the base market of Turkey, Baykal sheet metal working machines have traditionally commanded a leading market share thanks to the company's pioneering role in the development of Turkey's machine industry and its never-lessening emphasis on quality and service. Here, with a long engineering experience behind it, Baykal wishes to present itself as a quality-conscious, professional machine-building company serving the industry.

BLE PRO

Cost Efficient and Economical

01

PRODUCTIVE

High dynamism increases productivity on thin sheets (+20%) compared to a conventional drive system.

02

ACCURATE

Precise and repeatable in cutting and laser head positioning thanks to effective CNC management. Excellent cutting quality and dynamics on all materials.





03

MODULAR

Suitable for any production need, offering a full range of automation solutions.

04

USER FRIENDLY

Automatic nozzle changer and easy to use programming software.

05

PROFITABLE

Low operating costs and reduced maintenance.



COST EFFICIENT LASER CUTTING MACHINE

**BAYKAL Laser Cutting System:
New BLE PRO Fiber Laser.**



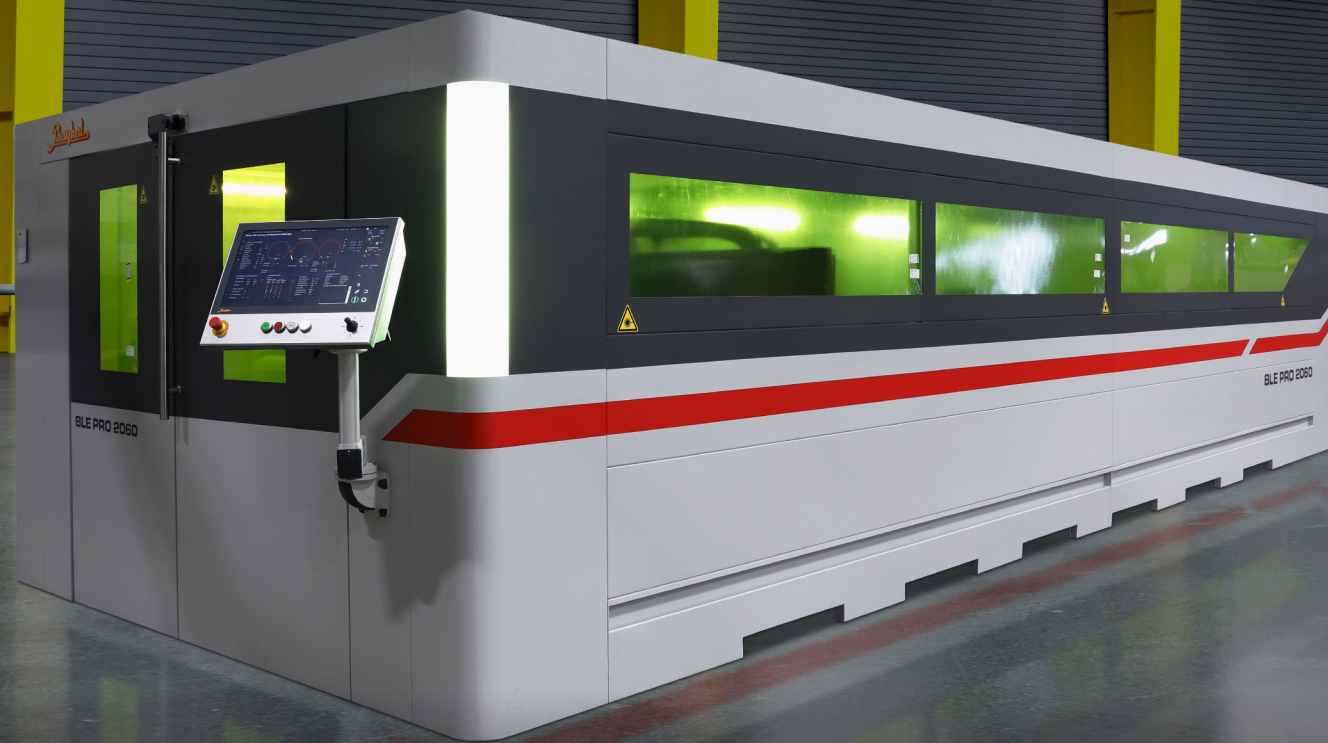
LESS FACTORY AND LOGISTICS SPACE

The whole machine (BLE PRO 1530) can be packed in one 40 OT container, which lets the investor save up with the cost of transportation and with the place in the workshop.



FAST AND PRECISE CUTTING FOR MAXIMUM PRODUCTIVITY

The BLE PRO is available as a 1.0kW, 2.0kW, 3.0kW, 4.0kW, and now 6.0kW.



LIMITLESS FLEXIBILITY

You can choose between large format (1500mm x 3000mm), max-format (2000mm x 4000mm), or even oversize format (2000mm x 6000mm)



VERSATILE DESIGN

Huge opening front doors with windows are useful to monitor the working area inside of the machine.





BLE PRO 1530



BLE PRO 1530





Baykal

BLE PRO 1530



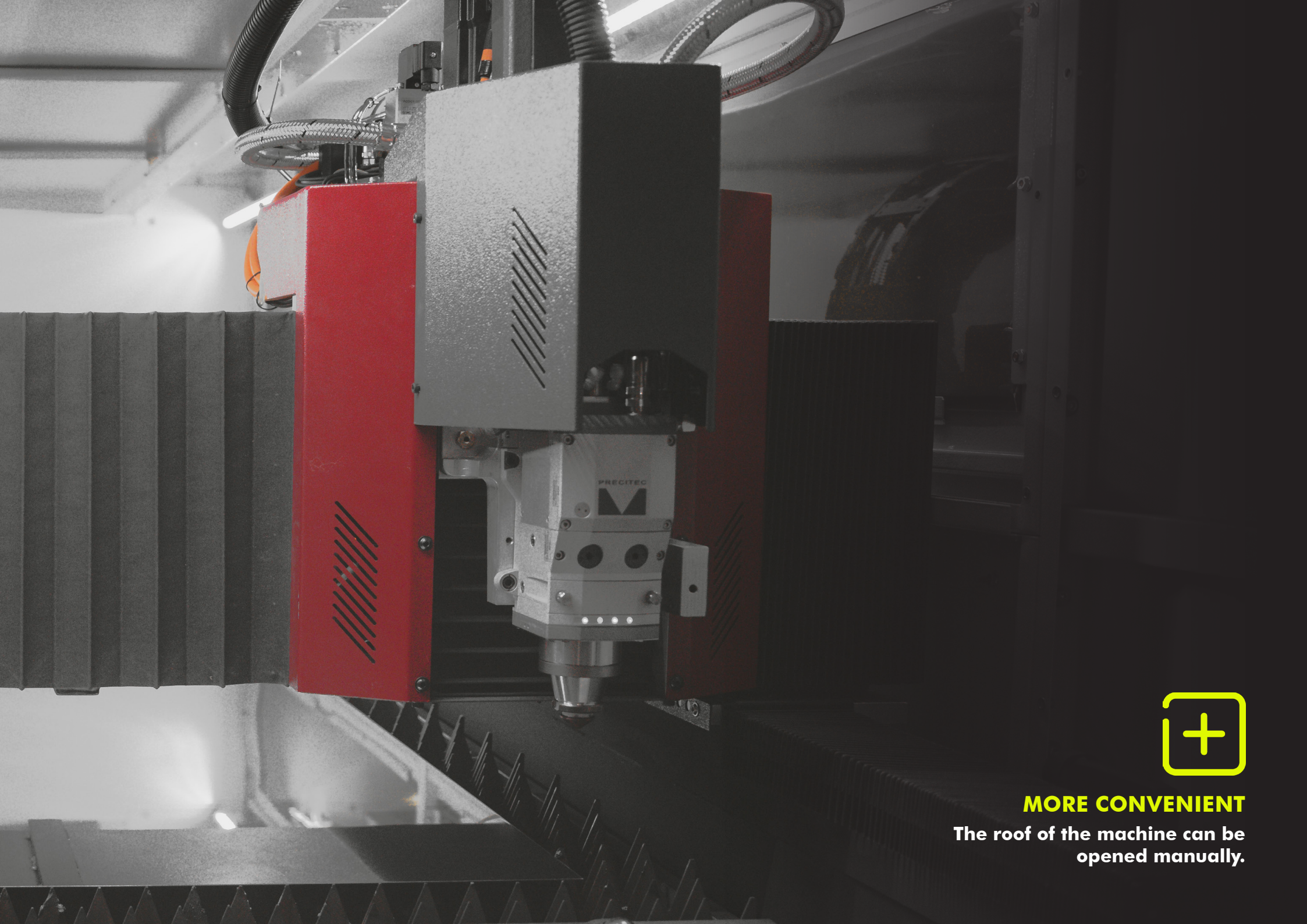
SMART FUNCTIONS AND INDUSTRY 4.0

New BLE PRO can be automated
and is ready for Industry 4.0



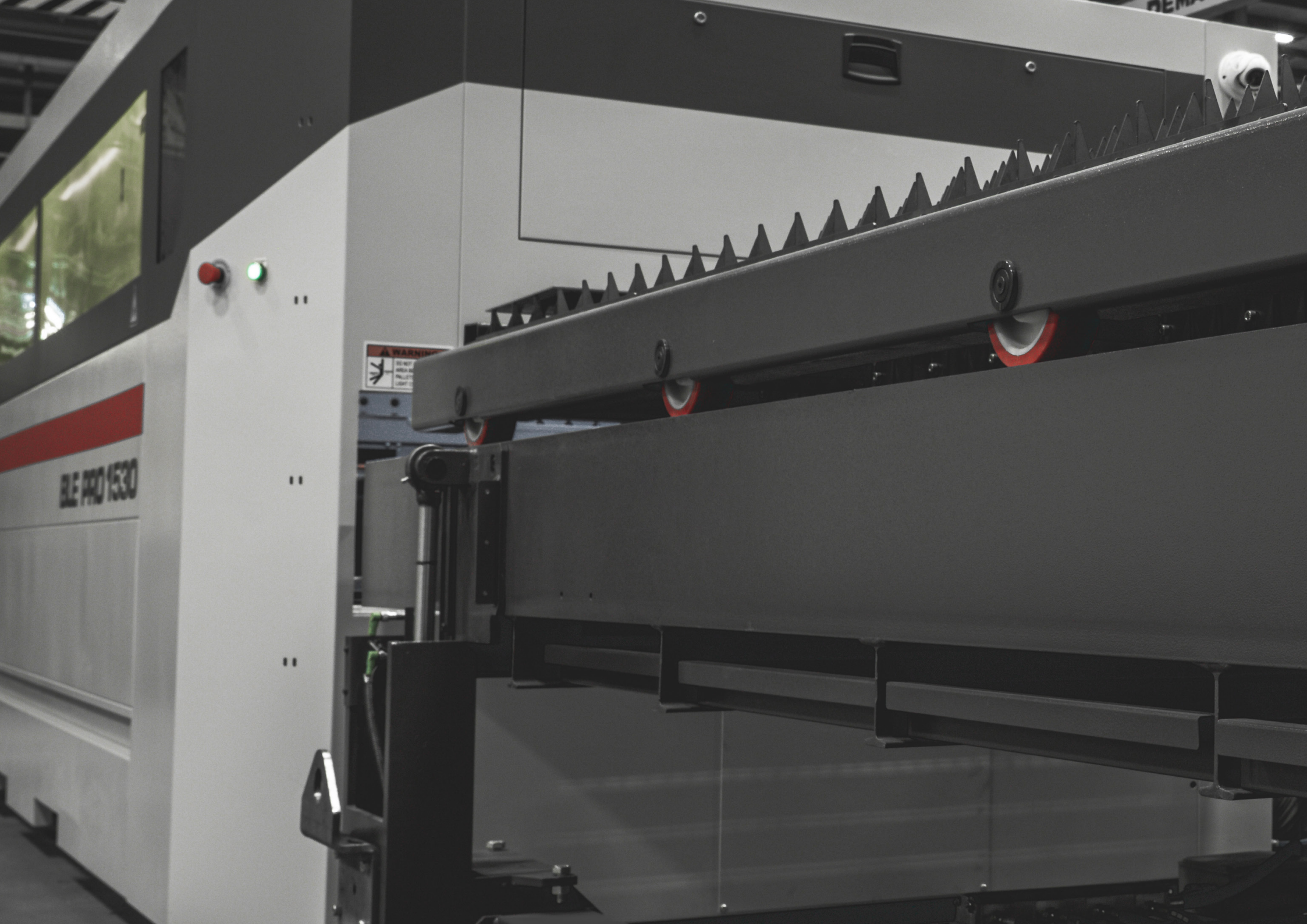
UNIQUE GANTRY

The gantry is sturdy without compromising on the quality of stiffness and durability of the machine.



MORE CONVENIENT

The roof of the machine can be
opened manually.



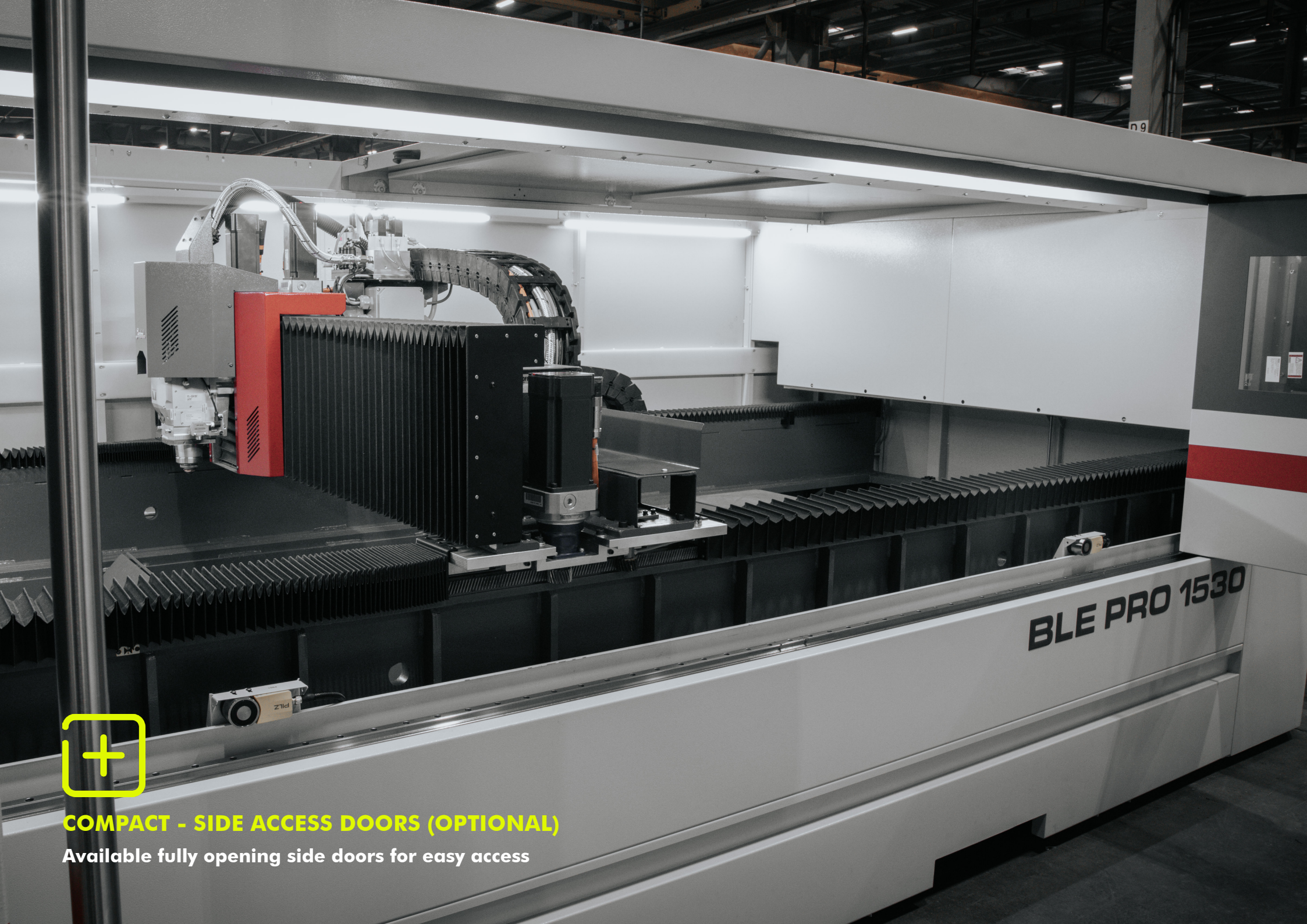
BLE PRO 1530

WARNING
DO NOT
REACH
INTO
THE
MACHINE
WHILE
IT IS
RUNNING



MORE STABLE AND FASTER AUTOMATIC PALLET EXCHANGE

The machine maximizes uptime with an integrated shuttle table system that allows one table to be loaded/unloaded while cutting on the other table.



BLE PRO 1530



COMPACT - SIDE ACCESS DOORS (OPTIONAL)

Available fully opening side doors for easy access



PRODUCTIVITY - AUTO NOZZLE CHANGER (OPTIONAL)

Reduces the processing time of cutting jobs.



USEFUL FUNCTIONS

Auto Nozzle Cleaning - Nozzle Centering



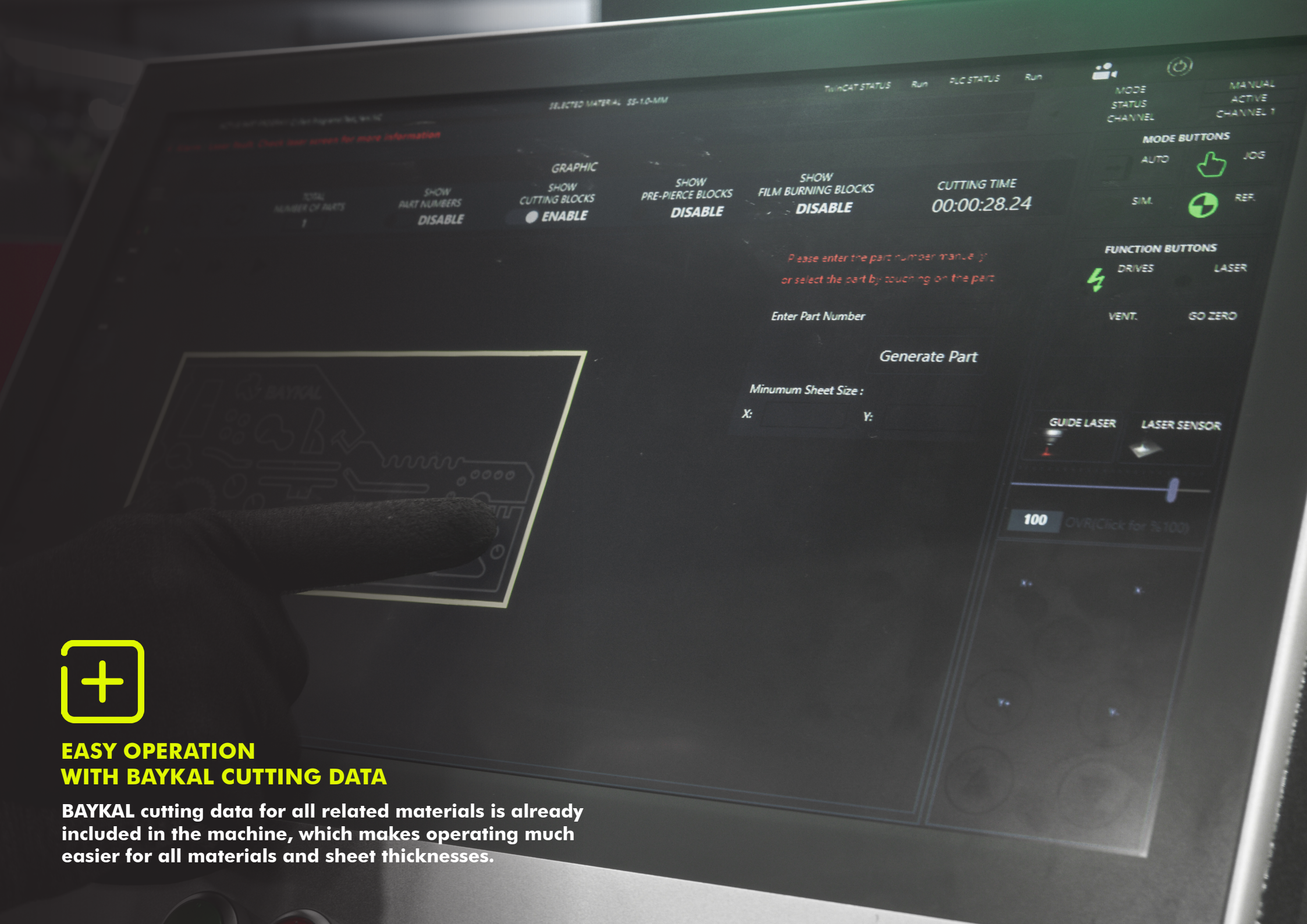
NEW GENERATION CONTROL UNIT

**New generation, user-friendly
BECKHOFF CNC with 18,5" LCD
multi-touch screen.**



EASY OPERATION WITH BAYKAL CUTTING DATA

BAYKAL cutting data for all related materials is already included in the machine, which makes operating much easier for all materials and sheet thicknesses.





BAYKAL HMI: THE MOST ADVANCED

Baykal-made interface makes
your work easier and ensures
you get the best results.



ADVANCED CUTTING HEAD

The New BLE PRO can cut a wide variety of materials with different thicknesses coming up with a result of excellent quality at the highest possible speed.



THE LATEST GENERATION IN LASER CUTTING

**The New PRECITEC ProCutter 2.0
generation impresses with its
increased performance.**

LightCutter 2.0



FLEXIBLE

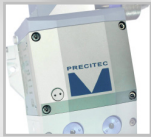
The LightCutter 2.0 is the ideal solution for all laser cutting applications in the medium power range up to 6 kW. Thanks to its wide range of variants you will always find the most efficient and economical configuration. It is characterized by high cutting qualities for all metals up to 25 mm sheet thickness, especially for laser cutting of mild steel, stainless steel, and aluminum.

PRECITEC

MADE IN
GERMANY

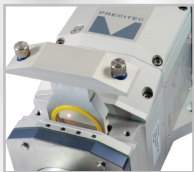


ProCutter 2.0



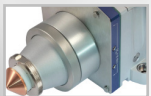
Focal Length Adjustment:
Manual or motorized via machine control

Focusing Lens:
High-quality optics | XY adjustment | no
repositioning | additional protective glass
below focusing lens



Protective Glass Cartridge:
Protecting the optics against
dirt and fume | monitoring of
attendance and contamination |
tool-free, easy change

LED Bar :
For immediate display of the current system state
(pressure, temperature, drive, contamination)

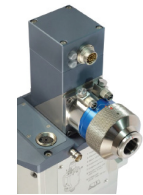


Distance Measurement :
Fast, exact, drift-free distance
measurement at any operating
temperatures, even at high accelerations



External Interface:
The output of all sensor data as an analog
value, readout the values via Bluetooth
set of thresholds

Protective Glass of Collimation Unit



Cut Monitoring:
Monitoring of piercing process and
detection of cut interruption

Mounting of the head:
Easily accessible from the front





A SAFER METHOD

The sliding front opening door is equipped with a magnetic safety lock.



BLE PRO 1530



HI-DESIGN SAFETY PROTECTION COVER BOX

**New BLE PRO has a cabin structure
designed by CE standards.**

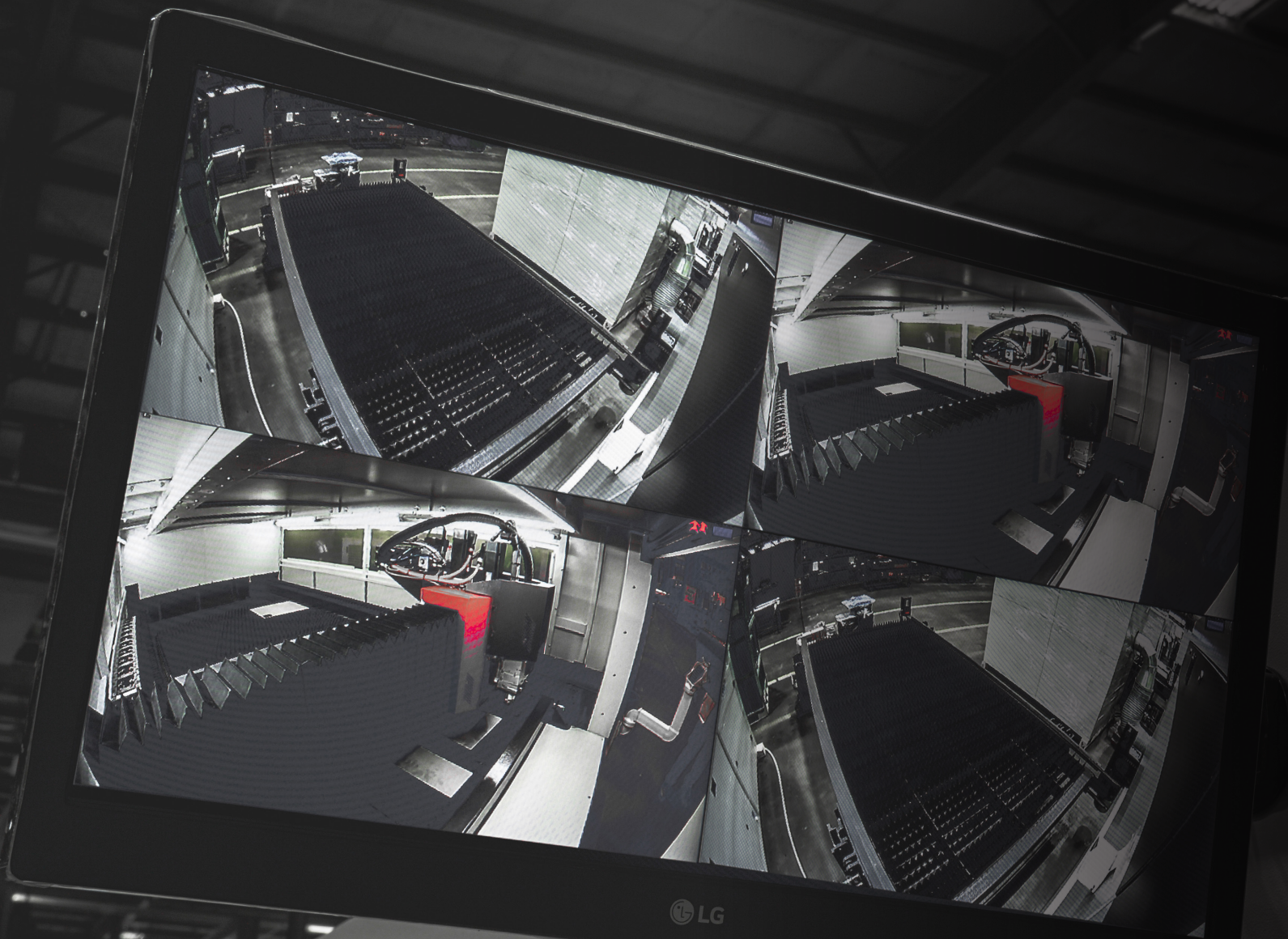


OPTIMUM PERFORMANCE

Equipped with high torque BECKHOFF servo motors and high precision reducers.



**MADE IN
GERMANY**



INTELLIGENT FUNCTIONS

The interior camera provides an excellent overview of the entire working area – with complete safety.

BLE PRO



MANUEL SCRAPS COLLECTOR

BLE PRO Fiber Laser has comfortable and practical scrap collectors that are removable by roller units, which allow for better and easier cleaning.

BLE PRO 1530



MORE SAFETY

New BLE PRO turns maximum protection
into maximum productivity.



ACCURACY

The welded steel frame construction of the compact New BLE PRO minimizes deformation caused by high acceleration and ensures overall machine accuracy.



PRODUCTIVITY

Excellent cutting quality for sheet metal
from the thinnest to the thickest.



BAYKAL STORAGE SYSTEMS

An economical introduction to BAYKAL storage technology



BLE PRO 1530



RETURN ON INVESTMENT

Automated intelligent production, unmanned, greatly saving labor costs

A large industrial machine, likely a metal sheet processing unit, is shown in a factory setting. The machine features a complex system of horizontal and vertical tracks, rollers, and mechanical components. Two main cassettes are visible: a top one for loading raw material and a bottom one for unloading cut sheets. The machine is painted in a light grey color with red safety markings. The background shows the interior of a large industrial building with a high ceiling and structural beams.

LOADING CASSETTE (Raw Material)

UNLOADING CASSETTE (Cut Sheet)



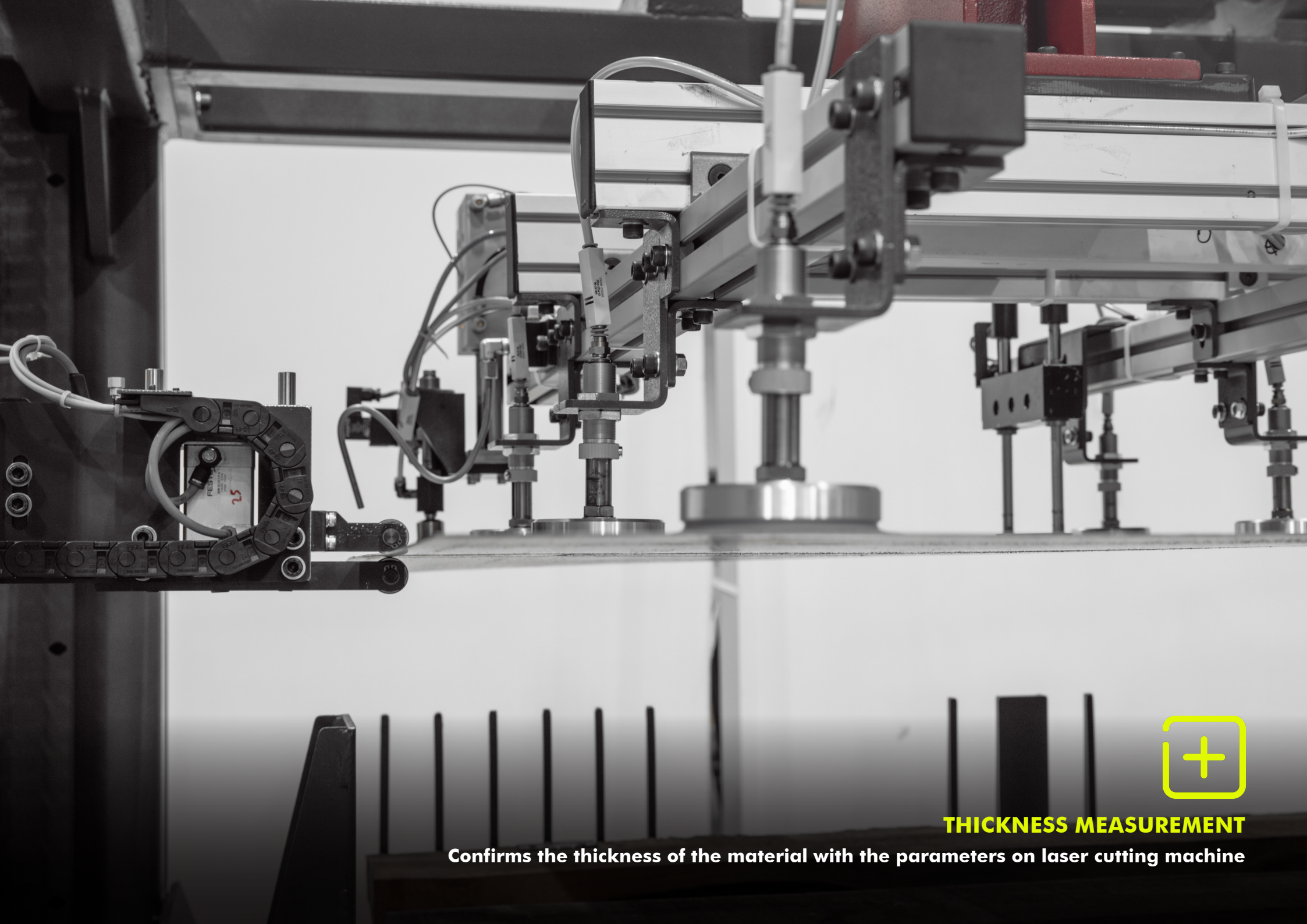
EFFICIENCY

Automatic loading and unloading, greatly improve production efficiency



NON-CONTACT PROCESS

Independent loading and unloading vacuum, improve the production efficiency



THICKNESS MEASUREMENT

Confirms the thickness of the material with the parameters on laser cutting machine

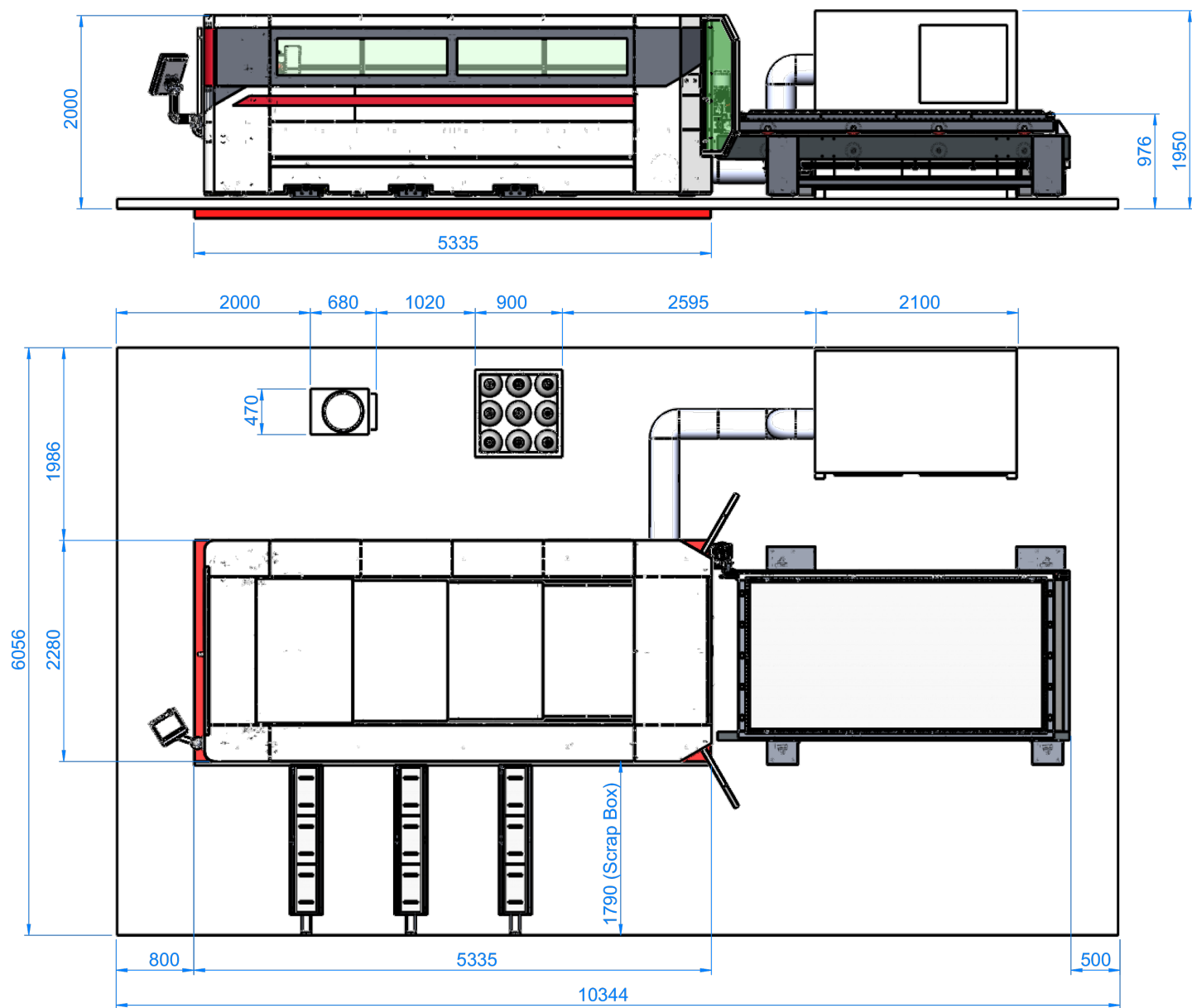


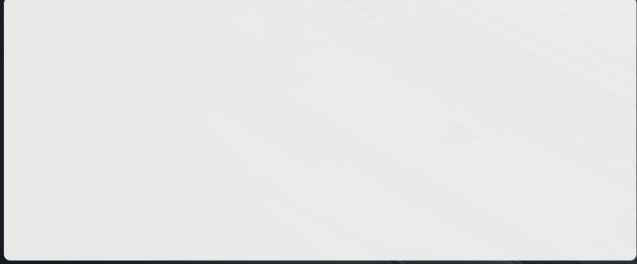
REDUCED STORAGE AREA

You can make better use of your machine and save space, time, and money.

	BLE1530-PRO	BLE2040-PRO	BLE2060-PRO
WORKING AREA	1524x3048 mm	2032x4064 mm	2032x6096 mm
LASER POWER	1000-6000 W	1000-6000 W	1000-6000 W
CUTTING HEAD	Precitec LightCutter (Automatic Focus) // Precitec ProCutter (Optional)	Precitec LightCutter (Automatic Focus) // Precitec ProCutter (Optional)	Precitec LightCutter (Automatic Focus) // Precitec ProCutter (Optional)
FOCUSING LENSES	150 mm	150 mm	150 mm
CNC CONTROL UNIT	Beckhoff CNC (18.5 " TFT-Windows 10)	Beckhoff CNC (18.5 " TFT-Windows 10)	Beckhoff CNC (18.5 " TFT-Windows 10)
SERVO MOTORS/DRIVERS	Beckhoff	Beckhoff	Beckhoff
RAPID TRAVERSE	95 m/min	115 m/min	115 m/min
VECTOR SPEED	135 m/min	165 m/min	165 m/min
ACCELERATION	1.8 G (15 m/s²)	2 G (18 m/s²)	2 G (18 m/s²)
ABSOLUTE POSITIONING ACCURACY	±0.03 mm	±0.03 mm	±0.03 mm
REPEATABILITY	±0.04 mm	±0.04 mm	±0.04 mm
FEED RATE	Programmable up to 50 m/min	Programmable up to 75 m/min	Programmable up to 75 m/min
TRANSFER TABLE MOTORIZED	Motorized - Automatic Exchange	Motorized - Automatic Exchange	Motorized - Automatic Exchange
MAX. LOAD CAPACITY	1250 kg for Each Table	2500 kg for Each Table	3500 kg for Each Table
NESTING SOFTWARE	LANTEK Expert Cut II or Metalix AutoNest PRO	LANTEK Expert Cut II or Metalix AutoNest PRO	LANTEK Expert Cut II or Metalix AutoNest PRO
NOZZLE CLEANING AND CALIBRATION	Automatic	Automatic	Automatic
FUME EXTRACTOR	Optional	Optional	Optional

Maximum Cutting Capacities					
	1 kW	2 kW	3 kW	4 kW	6 kW
Mild Steel	12	15	18	20	25
Stainless Steel	4	8	10	12	20
Aluminum	3	6	8	12	20
Copper	2	3	4	6	8
Brass	2	6	8	10	12





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