

# BLE - Pro



Think Big, We Do.

LASER   
technology

**READY 4.0  
CHANGE**





## From Past to *Future*

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

For its manufacturing operations Baykal utilises three factories which together combine a production area of 60,000 square meters, making it one of Europe's largest facility for sheet metal working 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 50 engineers. All the machines offered by Baykal are designed, manufactured, assembled and finished 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 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 40 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 Americas to Australia. 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, 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 conventional drive system.

02

## ACCURATE

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





**03**

### **MODULAR**

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

**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 SPACE AND LOGISTICS.**

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



## VERSATILE DESIGN

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





BLE PRO 1530



## **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.



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**



## ACCURACY

The welded steel frame construction of the compact NEW BLE - Pro minimises deformation caused by high acceleration and ensures overall machine accuracy.



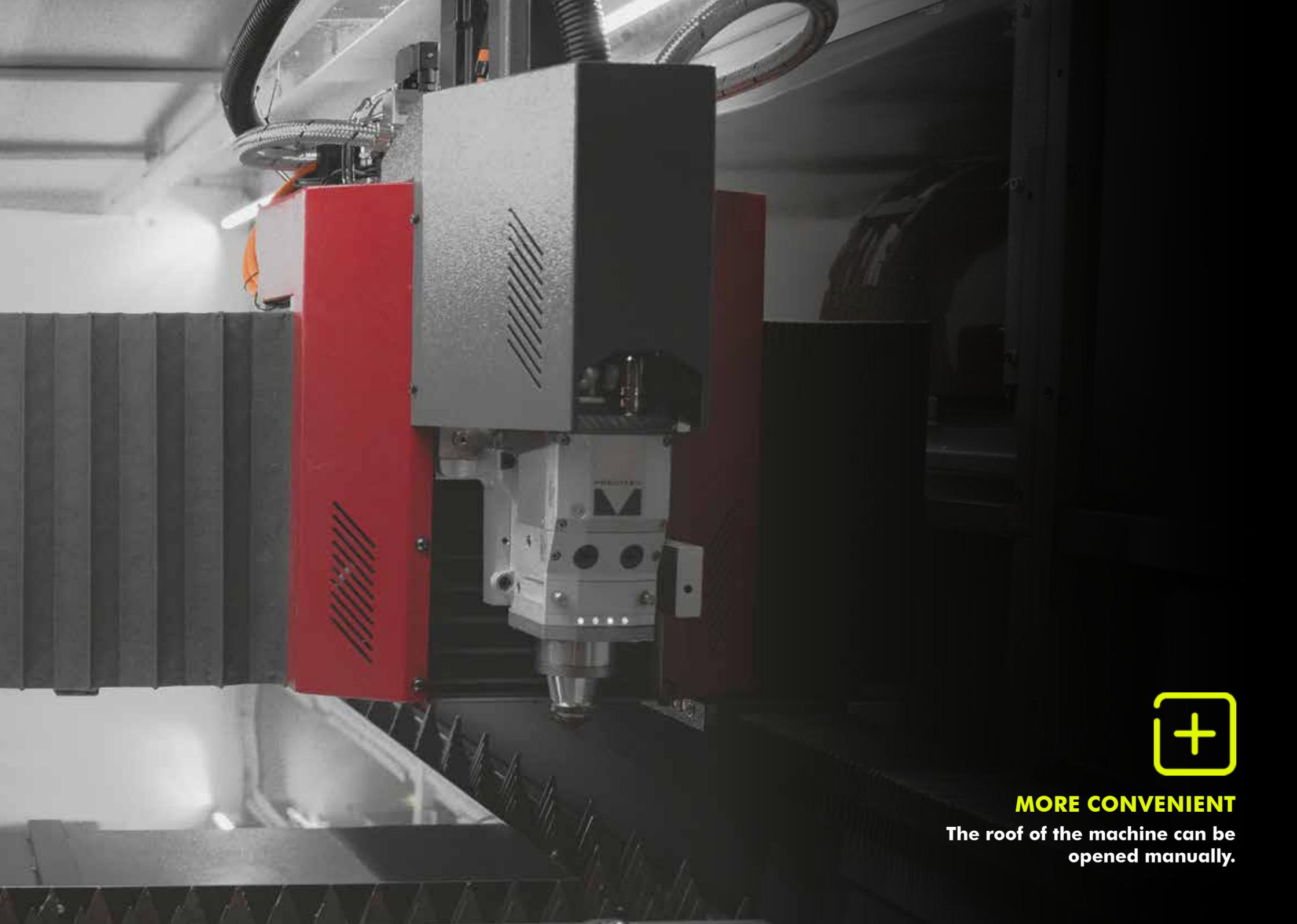
## **PRODUCTIVITY**

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



## **UNIQUE GANTRY**

The gantry is sturdy, not compromising on quality of stiffness and durability of the machine.



**MORE CONVENIENT**

The roof of the machine can be opened manually.



BLE PRO 1530



**MORE STABLE AND FASTER AUTOMATIC PALLET EXCHANGE**

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



**BAYKAL AUTOMATION**

**Tower Compact - Automatic Loading and Unloading for BLE-PRO**



**BLE PRO 1530**



## **USEFUL FUNCTIONS**

**Auto Nozzle Cleaning | Auto Nozzle Changer | Nozzle Centering**



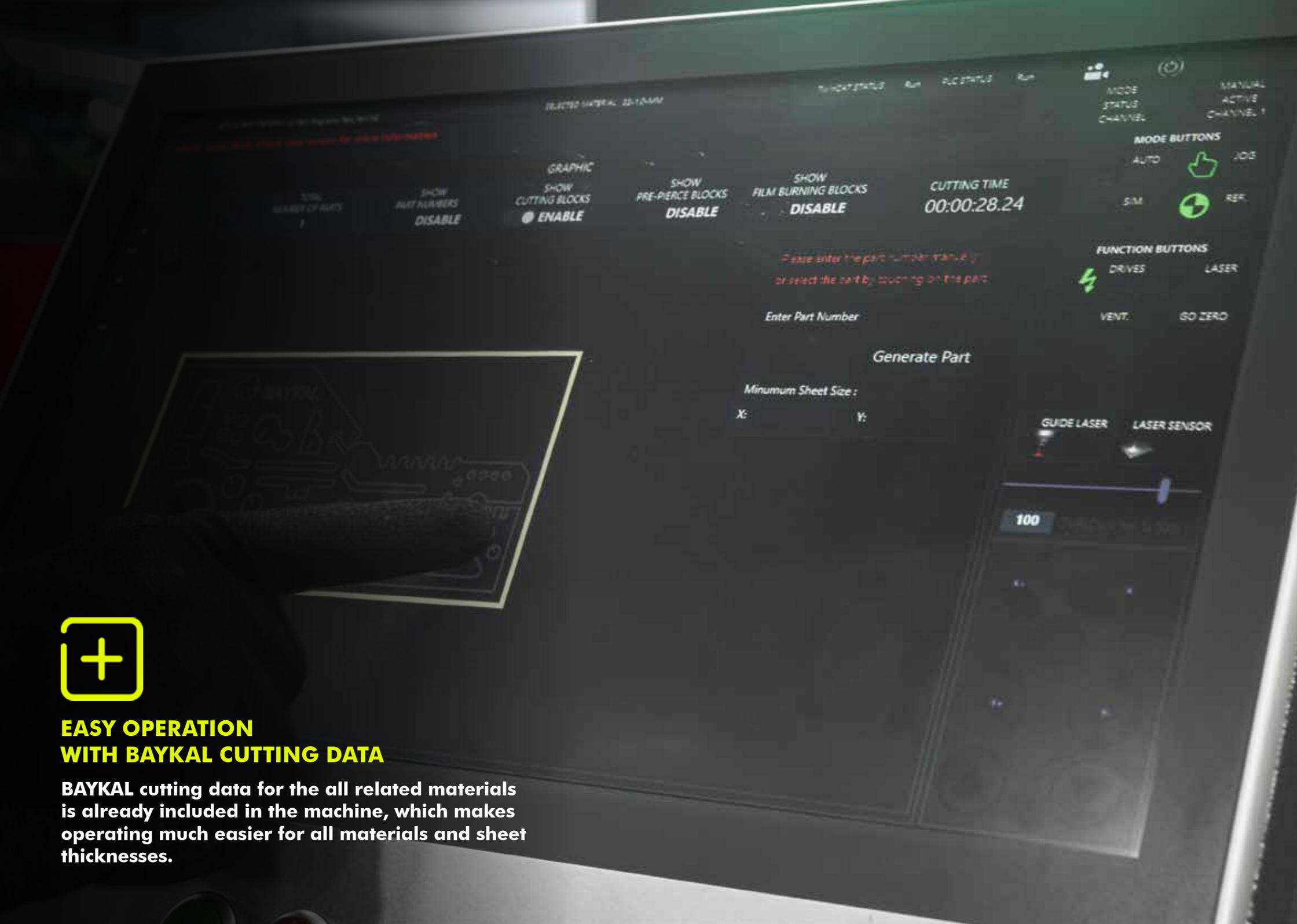
**NEW GENERATION CONTROL UNIT**

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



## EASY OPERATION WITH BAYKAL CUTTING DATA

BAYKAL cutting data for the 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  
- VERY EASY TO USE**

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

## 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 Light 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, temprature, drive, contamination)



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



External Interface:  
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 accessibility 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 in accordance with CE standards.



**BECKHOFF**



### **OPTIMUM PERFORMANCE**

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



**MADE IN  
GERMANY**



## **INTELLIGENT FUNCTIONS**

**Interior camera provides an excellent overview of the entire working area – with complete safety.**

BLE P



### **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**

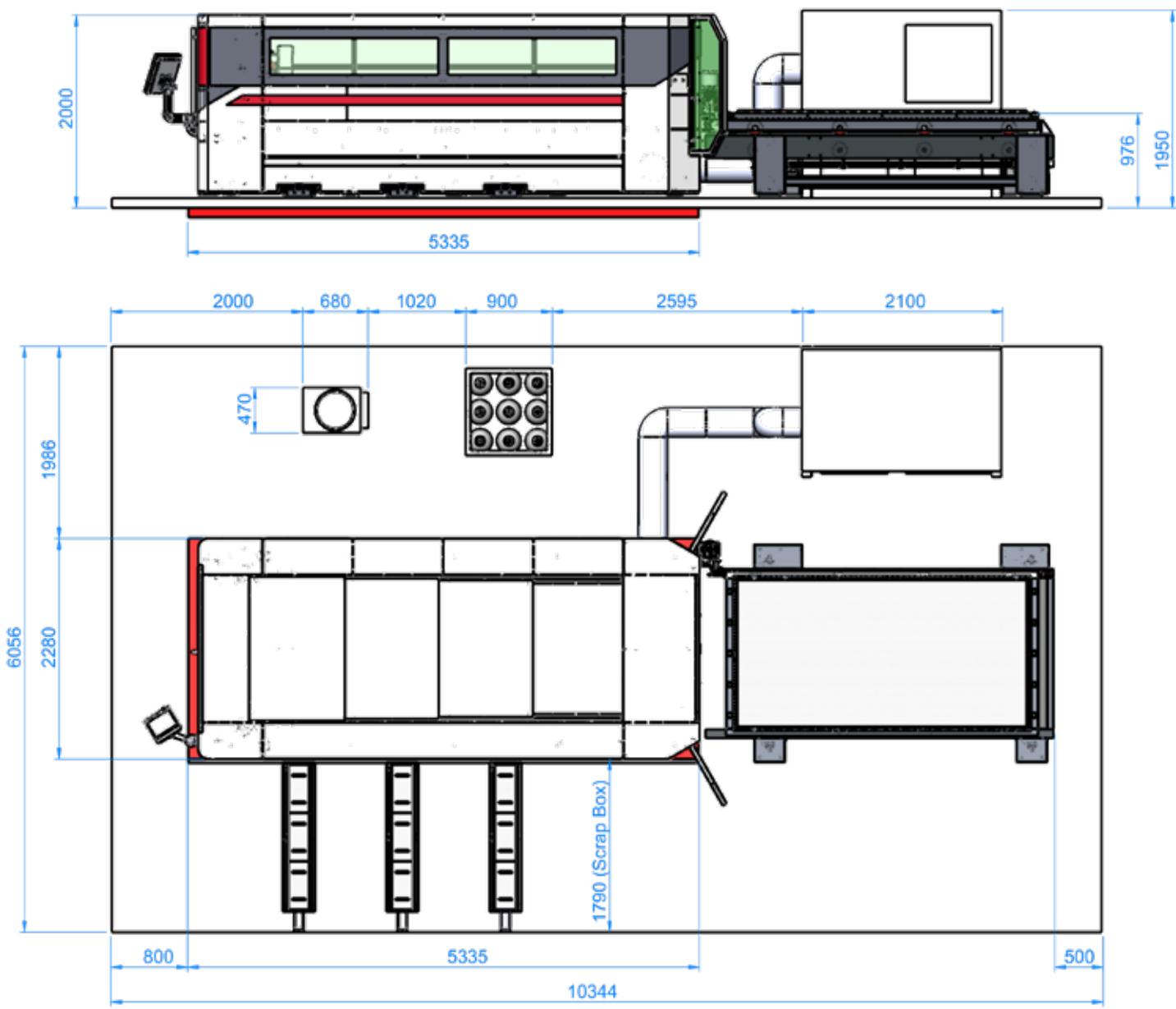


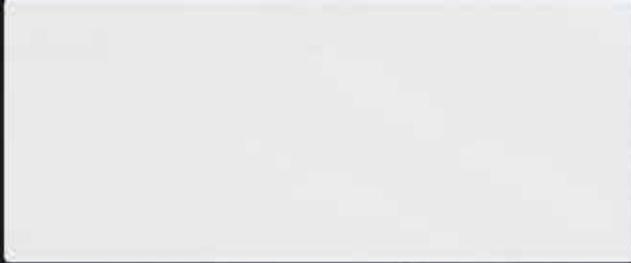
**MORE SAFE**

New BLE-Pro turns maximum protection  
into maximum productivity.

	<b>BLE1530-PRO</b>	<b>BLE2040-PRO</b>	<b>BLE2060-PRO</b>
<b>WORKING AREA</b>	1524x3048 mm	2032x4064 mm	2032x6096 mm
<b>LASER POWER</b>	1000-6000 W	1000-6000 W	1000-6000 W
<b>CUTTING HEAD</b>	Precitec LightCutter (Automatic Focus) // Precitec Procutter (Optional)	Precitec LightCutter (Automatic Focus) // Precitec Procutter (Optional)	Precitec LightCutter (Automatic Focus) // Precitec Procutter (Optional)
<b>FOCUSING LENSES</b>	150 mm	150 mm	150 mm
<b>CNC CONTROL UNIT</b>	Beckhoff CNC (18.5 " TFT-Windows 10)	Beckhoff CNC (18.5 " TFT-Windows 10)	Beckhoff CNC (18.5 " TFT-Windows 10)
<b>SERVO MOTORS/DRIVERS</b>	Beckhoff	Beckhoff	Beckhoff
<b>RAPID TRAVERSE</b>	95 m/min	115 m/min	115 m/min
<b>VECTOR SPEED</b>	135 m/min	145 m/min	145 m/min
<b>ACCELERATION</b>	1.5 G (15 m/s <sup>2</sup> )	1.8 G (18 m/s <sup>2</sup> )	1.8 G (18 m/s <sup>2</sup> )
<b>ABSOLUTE POSITIONING ACCURACY</b>	±0.03 mm	±0.03 mm	±0.03 mm
<b>REPEATABILITY</b>	±0.05 mm	±0.05 mm	±0.05 mm
<b>FEED RATE</b>	Programmable up to 50 m/min	Programmable up to 50 m/min	Programmable up to 50 m/min
<b>TRANSFER TABLE MOTORIZED</b>	Motorized - Automatic Exchange	Motorized - Automatic Exchange	Motorized - Automatic Exchange
<b>MAX. LOAD CAPACITY</b>	1250 kg for Each Table	2500 kg for Each Table	3500 kg for Each Table
<b>NESTING SOFTWARE</b>	LANTEK Expert Cut II or Metalix AutoNest PRO	LANTEK Expert Cut II or Metalix AutoNest PRO	LANTEK Expert Cut II or Metalix AutoNest PRO
<b>NOZZLE CLEANING AND CALIBRATION</b>	Automatic	Automatic	Automatic
<b>FUME EXTRACTOR</b>	Optional	Optional	Optional

Maximum Cutting Capacities					
	1 kw	2 kw	3 kw	4 kw	6kW
Mild Steel	10	15	18	20	25
Stainless Steel	4	8	10	12	15
Aluminum	3	6	8	10	12
Copper	2	4	5	6	8
Brass	2	4	5	6	8





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