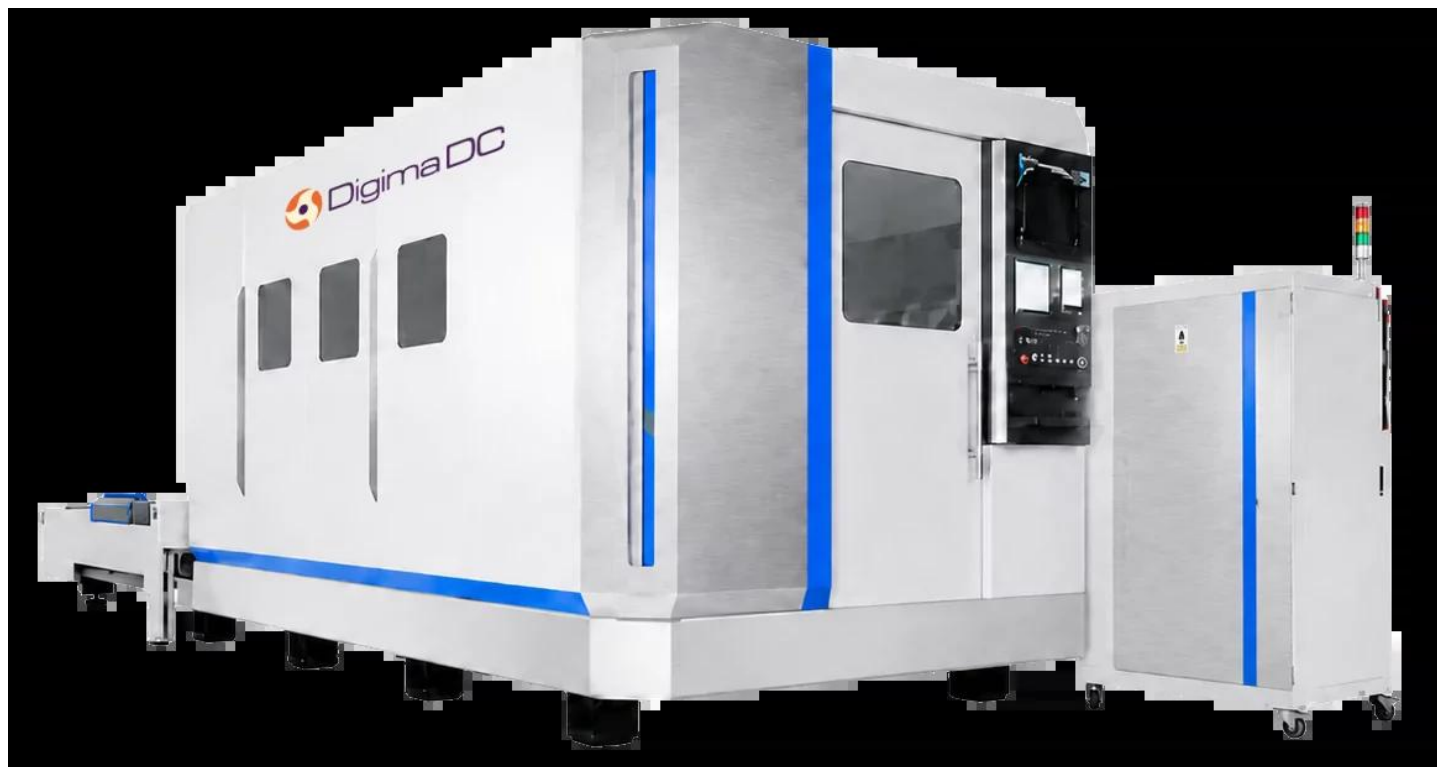




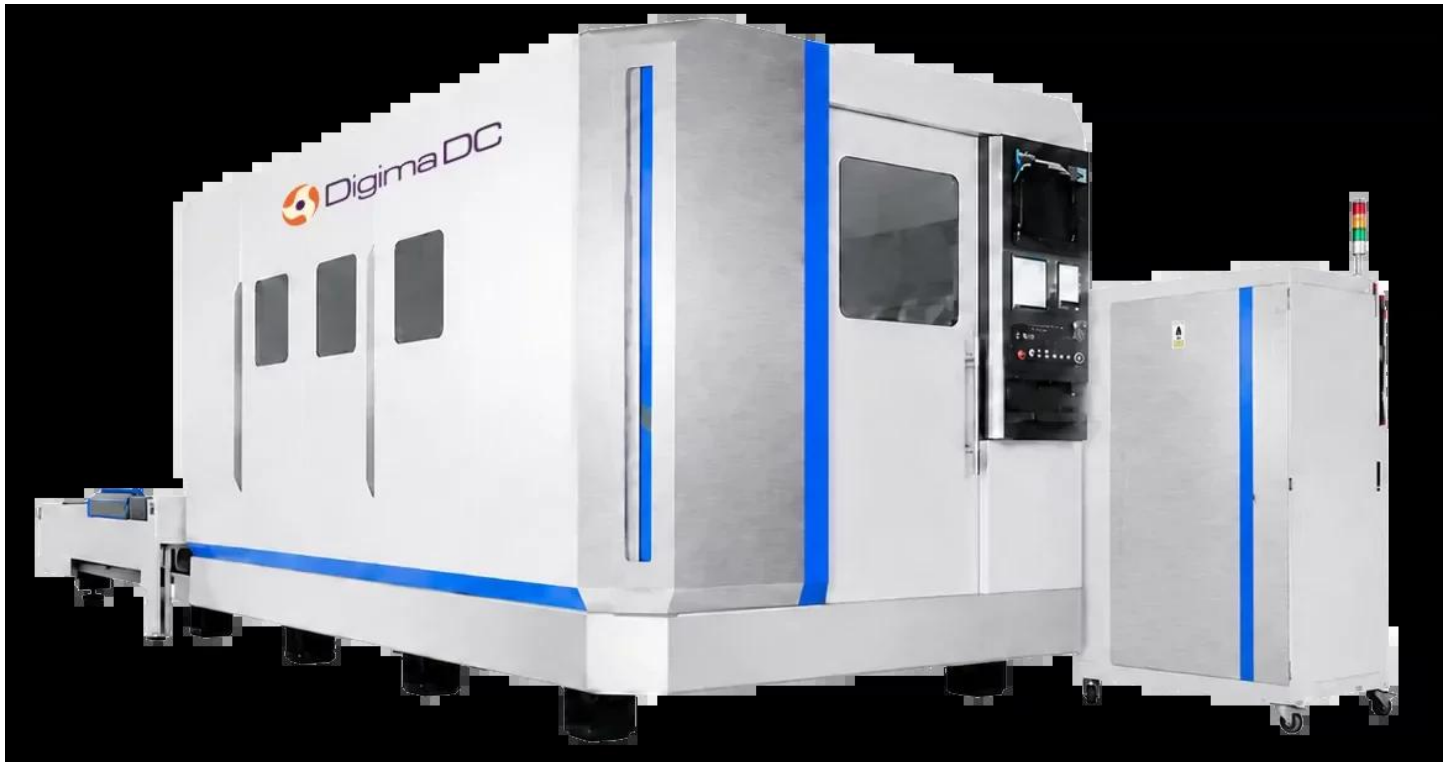
KARTA PRODUKTOWA

Digima DH-1520 1.5 kW enclosed fibre laser, 1500x2000





KARTA PRODUKTOWA



Fiber Laser D-1520 1500W

Fiber CNC Laser D-1520 1500W for precision metal cutting

D-1520 is a Fiber Laser D-1520 1500W designed for CNC cutting of sheet metal and metal components. The machine combines a compact design, a **1500 × 2000 mm** working area, a **Raycus 1500W** laser source and a **Raytools BS03KCAT** cutting head.

This model is ideal for sheet-metal component production, metalworking workshops, advertising companies, and the production of guards, panels, enclosures, technical components, and parts made of carbon steel, stainless steel, aluminium, brass and copper.

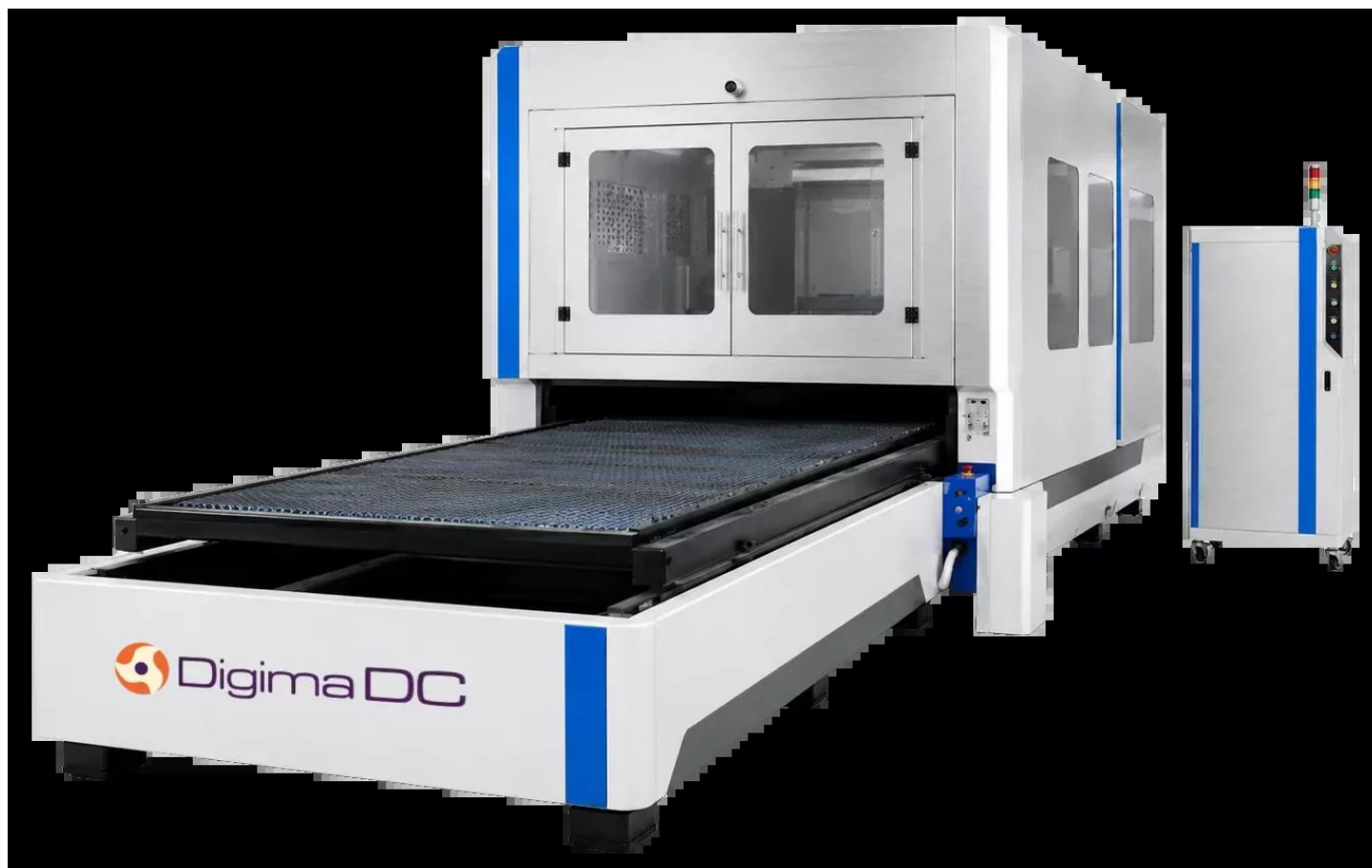
D-1520 1000 W is a practical fiber laser for companies that need precise, repeatable and fast metal cutting while retaining compact machine dimensions.

Main machine photos

Two main photos of the D-1520 laser



KARTA PRODUKTOWA



General view of the machine



KARTA PRODUKTOWA



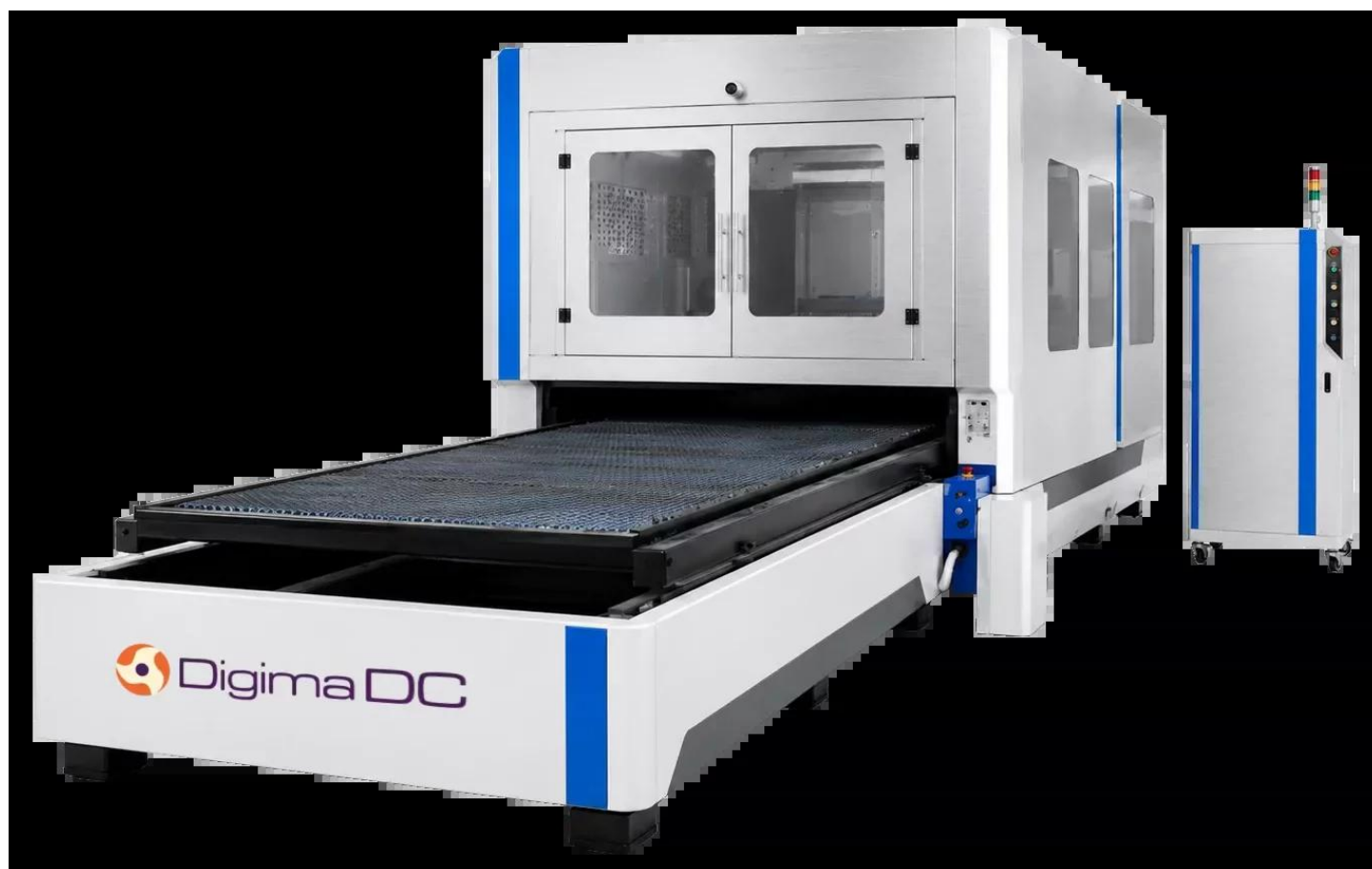
Additional laser view

Machine configuration

15 key machine components



KARTA PRODUKTOWA



1. Machine Machine with a 2000 × 1500 mm working area, a stable construction and high operating dynamics.

KARTA PRODUKTOWA



2. Laser source Raycus 2 kW laser source for efficient metal cutting.

KARTA PRODUKTOWA



KARTA PRODUKTOWA

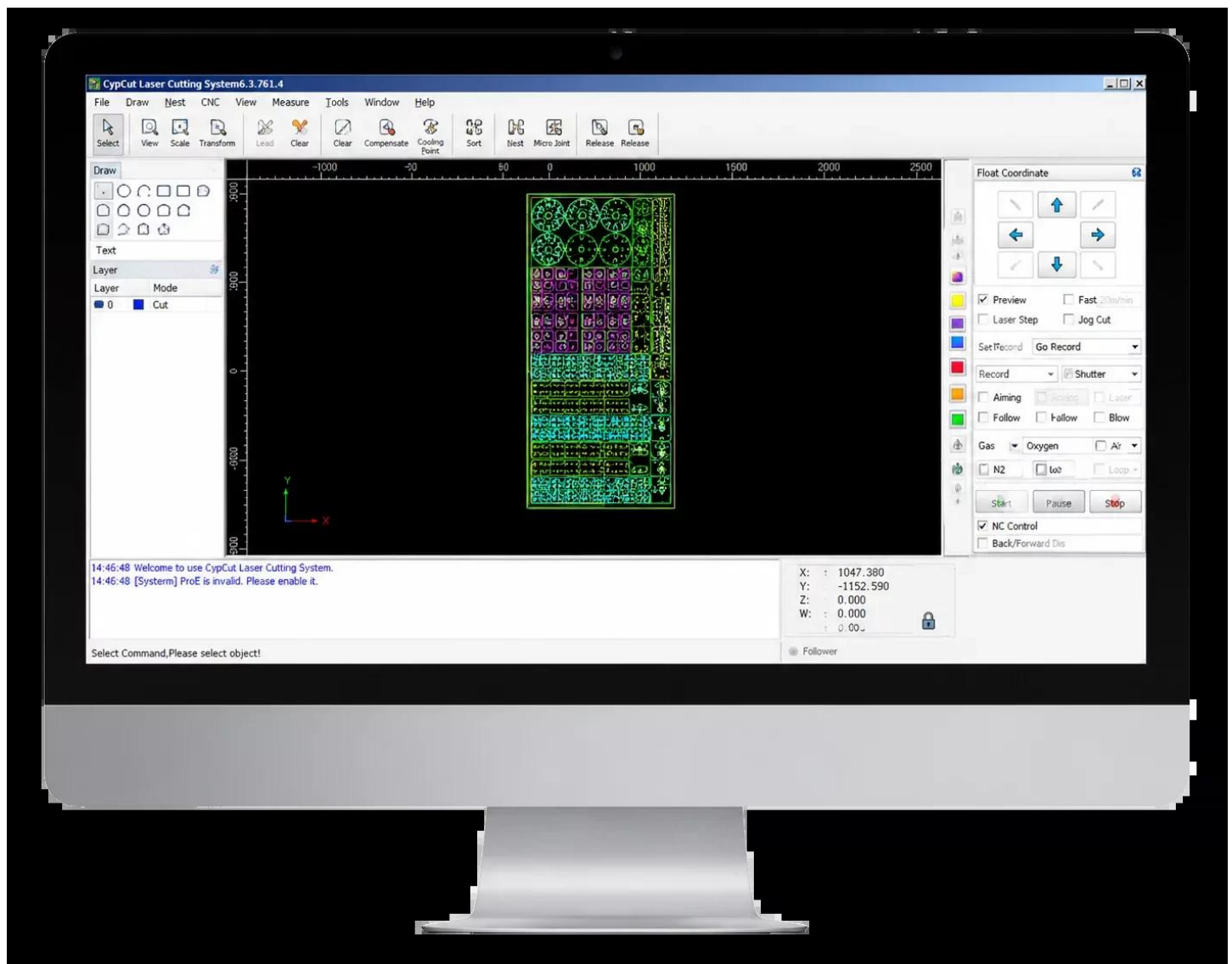
3. Laser head BM03KCAT head with lens protection, water cooling and automatic focal-length adjustment.



4. Servo drive DELTA drives: X axis 750 W, Y axis 2 × 750 W and Z axis 400 W.



KARTA PRODUKTOWA



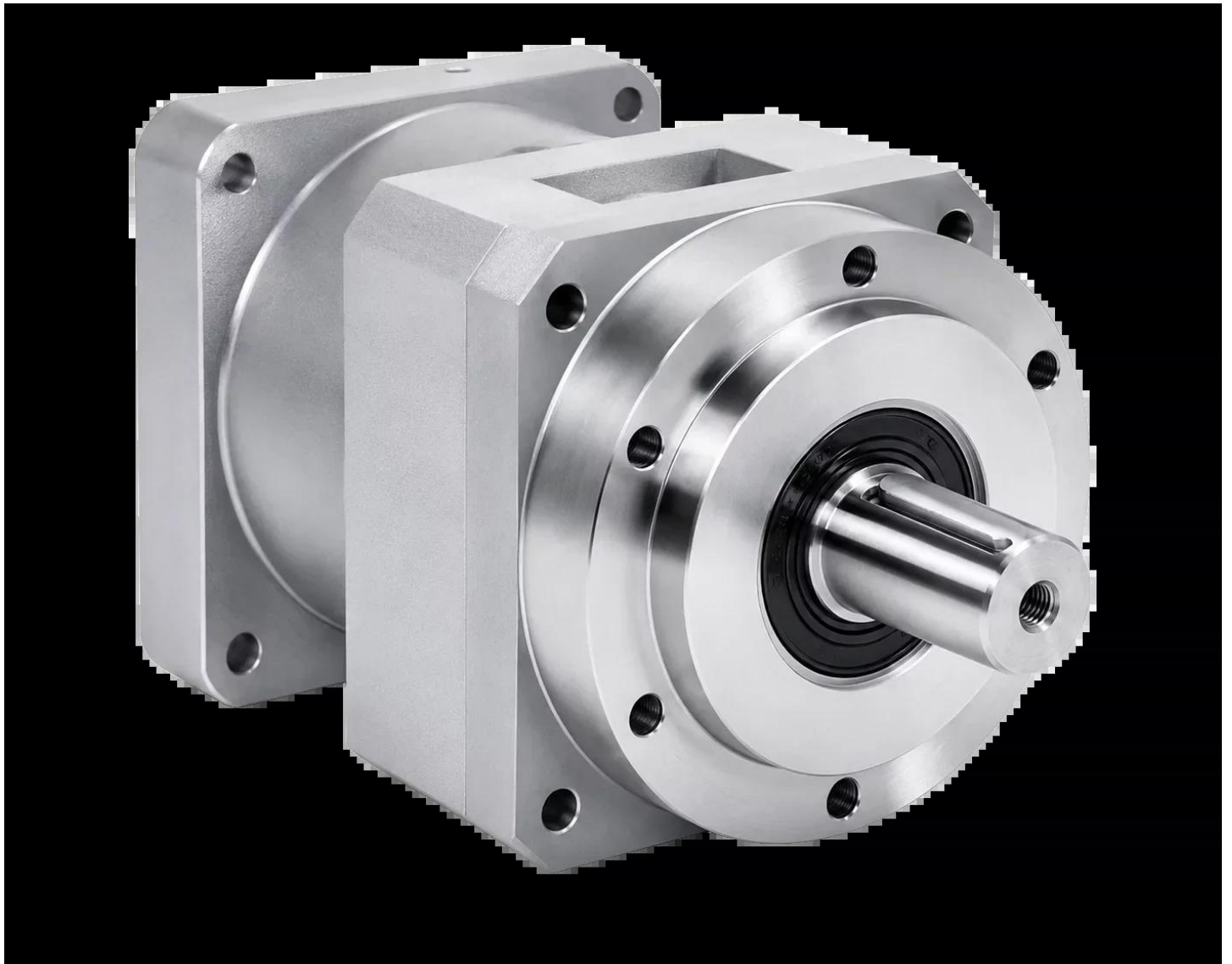
5. Control system Raytools XC3000S system for controlling the laser cutting process.



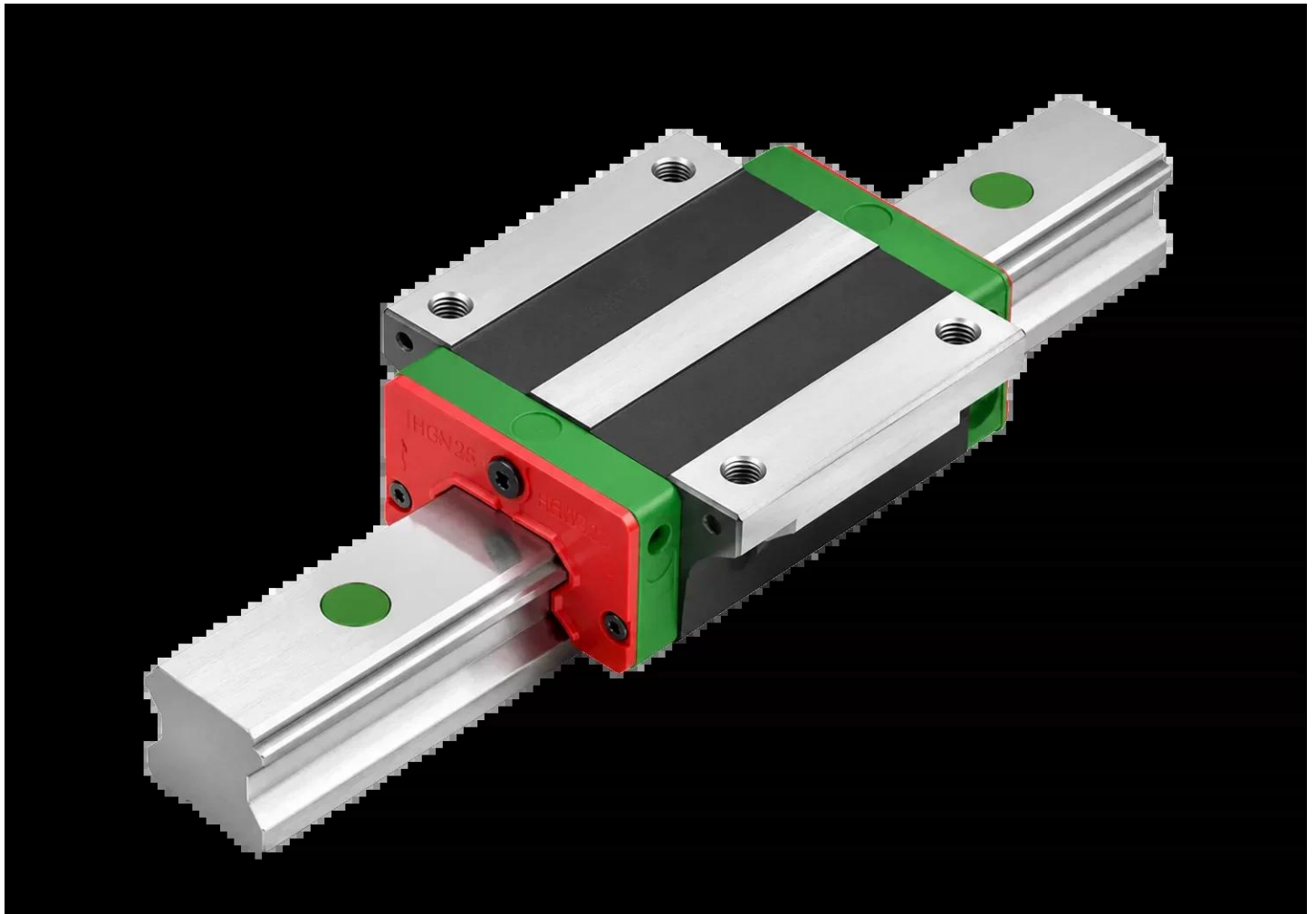
6. RackYYC rack made of hardened and ground steel — durable and precise.



7. TBI ball screwTBI component from Taiwan used in the precision motion system.



8. GearboxSHIMPO gearbox ensuring stable power transmission.



9. Linear guideHIWIN guides for smooth and accurate axis movement.

KARTA PRODUKTOWA



10. Electrical components DELIXI electrical components used in the control system.



11. Proportional gas valve SMC proportional valve for precise gas-pressure control.

KARTA PRODUKTOWA



12. Machine bedBed after heat treatment and ageing process for structural stability.



13. Gantry beam Lightweight and rigid aluminium beam improving dynamics and cutting quality.

KARTA PRODUKTOWA



KARTA PRODUKTOWA

14. Water chiller HANLI / S&A chiller for stabilising the temperature of the source and head.



15. Lubrication system Automatic guideway lubrication with time and frequency adjustment. Optional equipment

Optional components available for purchase

The following components can be added to the laser configuration.



KARTA PRODUKTOWA



KARTA PRODUKTOWA

Voltage stabiliser

Helps maintain stable power supply and smooth machine operation, especially in locations with voltage fluctuations.



Screw compressor with air tank

A solution for economical cutting of carbon and stainless steel using compressed air.



Extraction fan

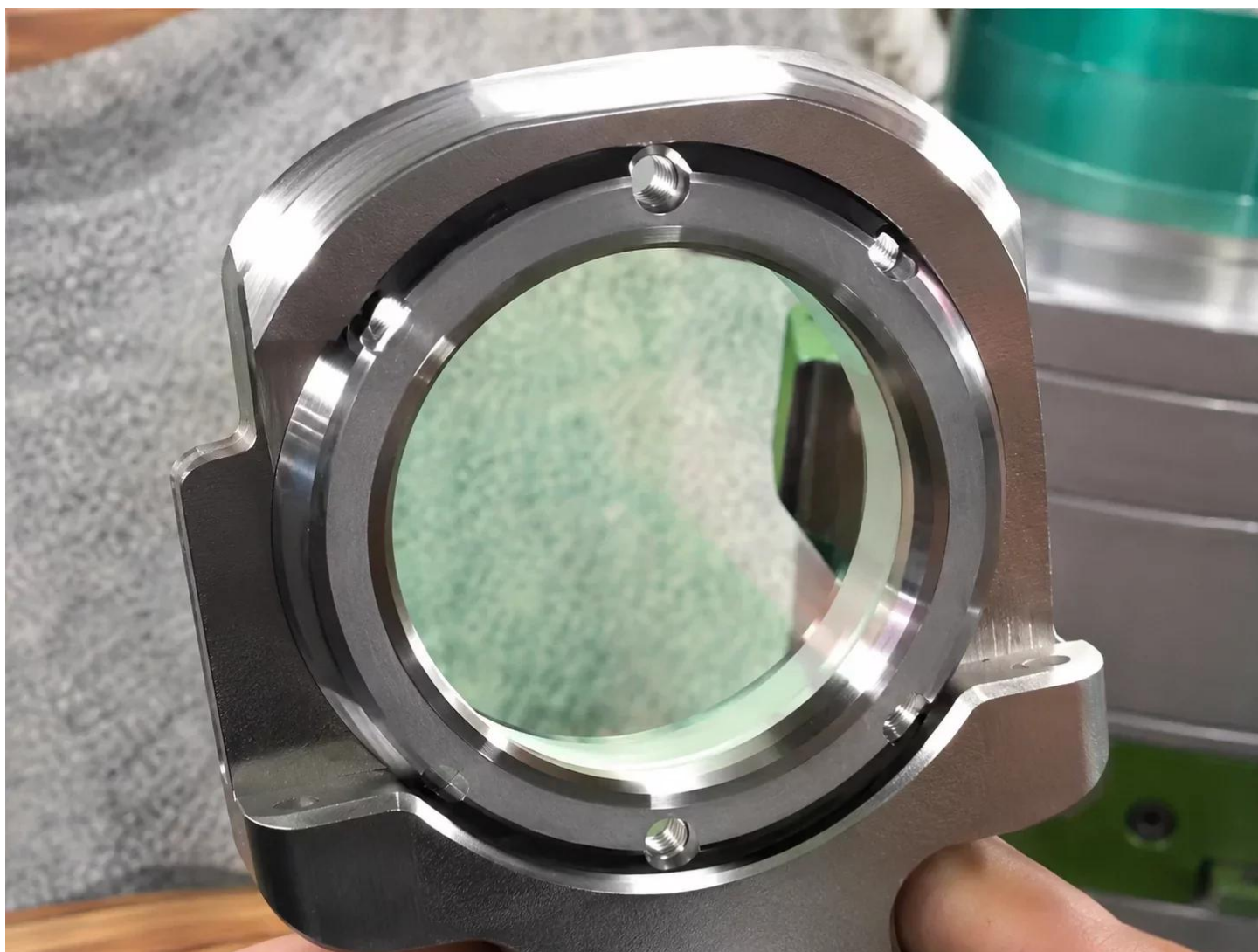
A simple and practical system for removing dust and fumes generated during laser cutting.

Consumables

Optional laser consumables

Consumable parts included in the set.

KARTA PRODUKTOWA



Protective lens, 5 pcs. Service life: 300–500 hours. The set includes 5 pieces; a larger stock is recommended.

KARTA PRODUKTOWA



Cutting nozzle, 5 pcs. Service life: 300–500 hours. Cutting nozzles for everyday machine operation.

KARTA PRODUKTOWA



Ceramic ring, 1 pc.Service life: 4000–5000 hours. A component of the laser head.

KARTA PRODUKTOWA



Focusing lens, 1 pc.Service life: 4000–5000 hours. Lens that focuses the laser beam

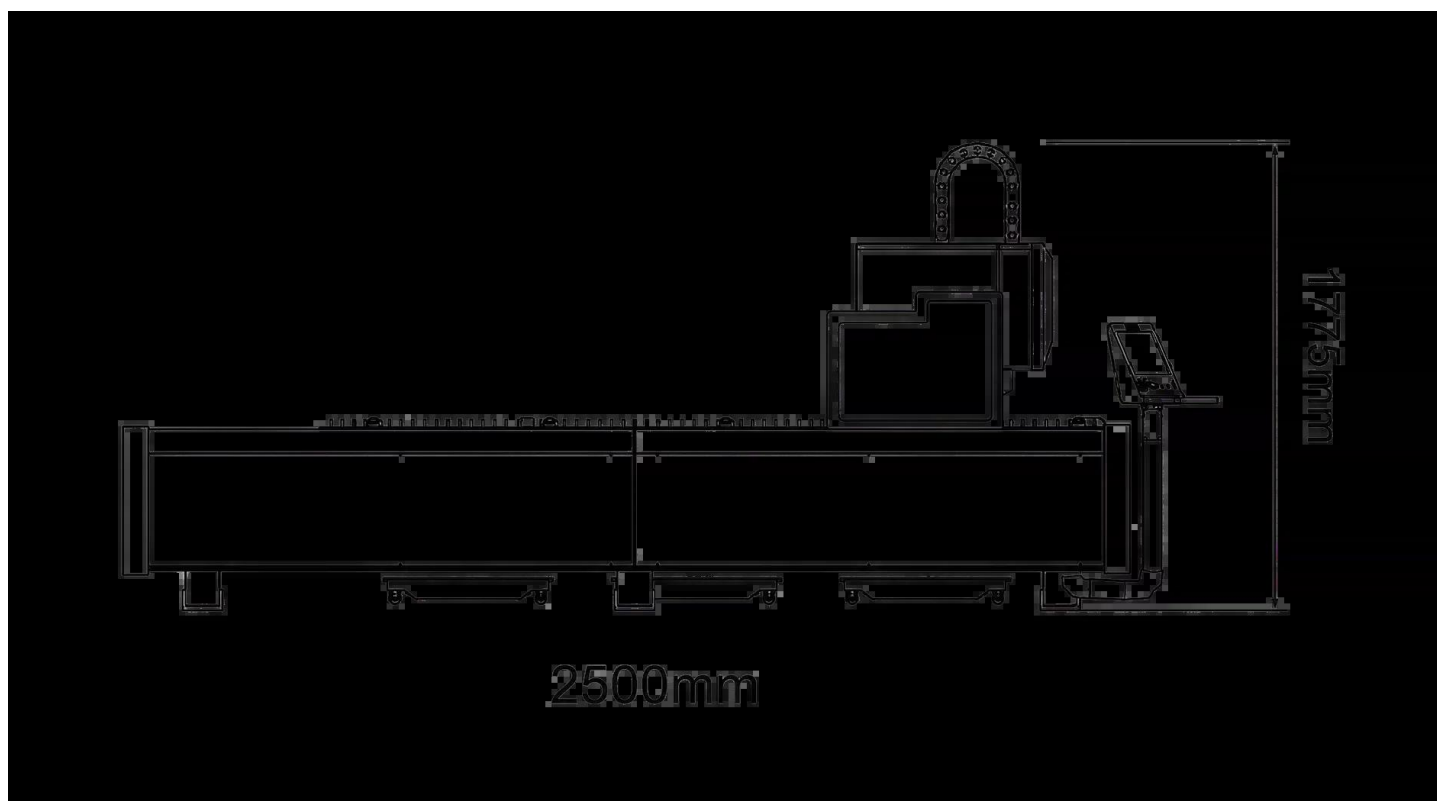
KARTA PRODUKTOWA



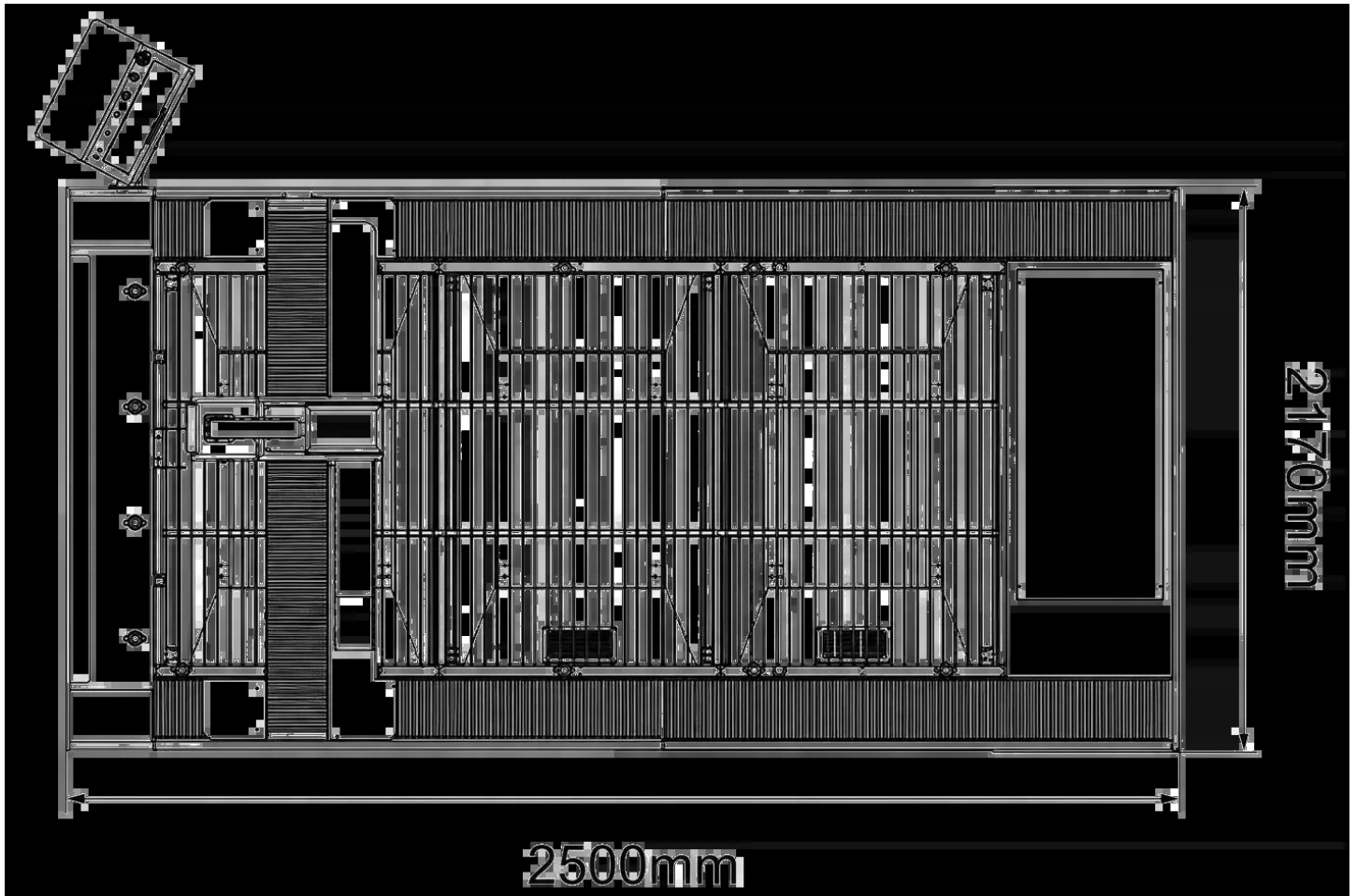
Collimating lens, 1 pc. Service life: 4000–5000 hours. Optical component of the laser system.
Technical images

Machine dimensions and technical drawing

KARTA PRODUKTOWA



Machine dimension drawing Side and top views with the key dimensions of the D-1520 structure.



Additional technical image Diagram or technical detail showing the machine construction.

Cutting parameters

Cutting parameters for the D-1520 1000 W model

Carbon steel – CS

Cutting parameters for a 1000 W source.

Material thickness	1000 W cutting speed	Material
1 mm	15 m/min	Carbon steel
2 mm	6 m/min	Carbon steel
3 mm	2,5–3,2 m/min	Carbon steel
4 mm	2,3–2,8 m/min	Carbon steel
5 mm	1,8–2,1 m/min	Carbon steel
6 mm	1,2–1,5 m/min	Carbon steel
8 mm	1–1,1 m/min	Carbon steel



KARTA PRODUKTOWA

Material thickness	1000 W cutting speed	Material
10 mm	0,6–0,9 m/min	Carbon steel

Stainless steel – SS

Cutting parameters for a 1000 W source.

Material thickness	1000 W cutting speed	Material
1 mm	15–20 m/min	Stainless steel
2 mm	4–6 m/min	Stainless steel
3 mm	2,5–3 m/min	Stainless steel
4 mm	1–1,5 m/min	Stainless steel

Aluminium – AL

Cutting parameters for a 1000 W source.

Material thickness	1000 W cutting speed	Material
1 mm	10–15 m/min	Aluminium
2 mm	4–6 m/min	Aluminium
3 mm	1–1,5 m/min	Aluminium

Brass – Brass

Cutting parameters for a 1000 W source.

Material thickness	1000 W cutting speed	Material
1 mm	8–10 m/min	Brass
2 mm	2–2,6 m/min	Brass
3 mm	0,6–1 m/min	Brass

Operating cost analysis – 1000 W variant

Data manually transcribed from the operating cost analysis table for 1000 W power.

Item	Air / stainless steel	Oxygen O ₂ / stainless steel	Nitrogen N ₂ / stainless steel
Laser power	2,3 kW	2,3 kW	2,3 kW
Water chiller unit	2,8 kW	2,8 kW	2,8 kW
Main machine	5,4 kW	5,4 kW	5,4 kW
Extraction unit	3 kW	3 kW	3 kW



KARTA PRODUKTOWA

Item	Air / stainless steel	Oxygen O ₂ / stainless steel	Nitrogen N ₂ / stainless steel
Total power	13,4 kW	13,4 kW	13,4 kW
Average energy consumption	13,4 × 80% = 10,72 kW	13,4 × 80% = 10,72 kW	13,4 × 80% = 10,72 kW
Gas consumption	150 l/h	30 l/h	150 l/h

The data are indicative and depend on the material type, sheet quality, assist gas, focusing settings, nozzle, pressure and the required edge quality.

Technical specifications

D-1520 1000 W specification

Parameter	Value
Model	Fiber Laser D-1520 1500W
Working area	1500 × 2000 mm
Laser power	1000 W
Cutting head	BS03KCAT
Laser source	Raycus
Fiber source service life	Over 10,000 hours
Chiller	S&A / Hanli
Cutting thickness range	0.5–10 mm within the standard precision range
Cutting assist gas	Standardly without an air source; optionally a screw compressor with air tank, oxygen or nitrogen
Maximum acceleration	1,5G
Repositioning accuracy	Within ±0.01 mm
Lubrication system	Electric
Dust extraction	Standardly without an extraction unit; optionally an extraction fan
Positioning accuracy	< ±0,02 mm
Assist gases	Oxygen, nitrogen, compressed air
Repeatability	≤ ±0,005 mm
Maximum speed	60 m/min
Supported file formats	DXF / PLT / AI / LXD / GBX / NC code
Power supply voltage	380 V, 3 phases, 50/60 Hz / 220 V
Warranty	1 year