



KARTA PRODUKTOWA

Digima F1530 3kW open-bed fibre laser, 1500x3000 mm





Machine Description

Digima F1530 3kW

When Precision Becomes the Premium Standard

Digima F1530 3 kW is an advanced fibre laser cutting machine, designed for companies that seek no compromises – only maximum quality, stability and technological advantage.

This is a machine for those who think long-term: about repeatable production, perfect edges and productivity that translates directly into profit.

With a power of **3000 W**, a working area of **1500 × 3000 mm** and repeatability accuracy of **±0.05 mm**, the Digima F1530 meets the expectations of the most demanding industrial plants, serial-production operations and growth-oriented companies.





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Laser Power

3000 W



Working Area

1500 × 3000 mm



Working Speed

60–65 m/min



Repeatability Accuracy

±0,05 mm

Digima F1530 3 kW Is More Than Just a Laser.

It is a tool for controlling quality, pace and production repeatability.

Why the Digima F1530 3 kW?



Exceptional Precision

Cutting stability and perfect reproduction of workpieces.



High Speed

Operation at speeds of up to 65 m/min.



Minimum Kerf Width

Kerf width from as little as 0.1 mm.

O₂

Flexible Operation

Capability to operate with O₂, N₂ or compressed air.



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Robust Construction

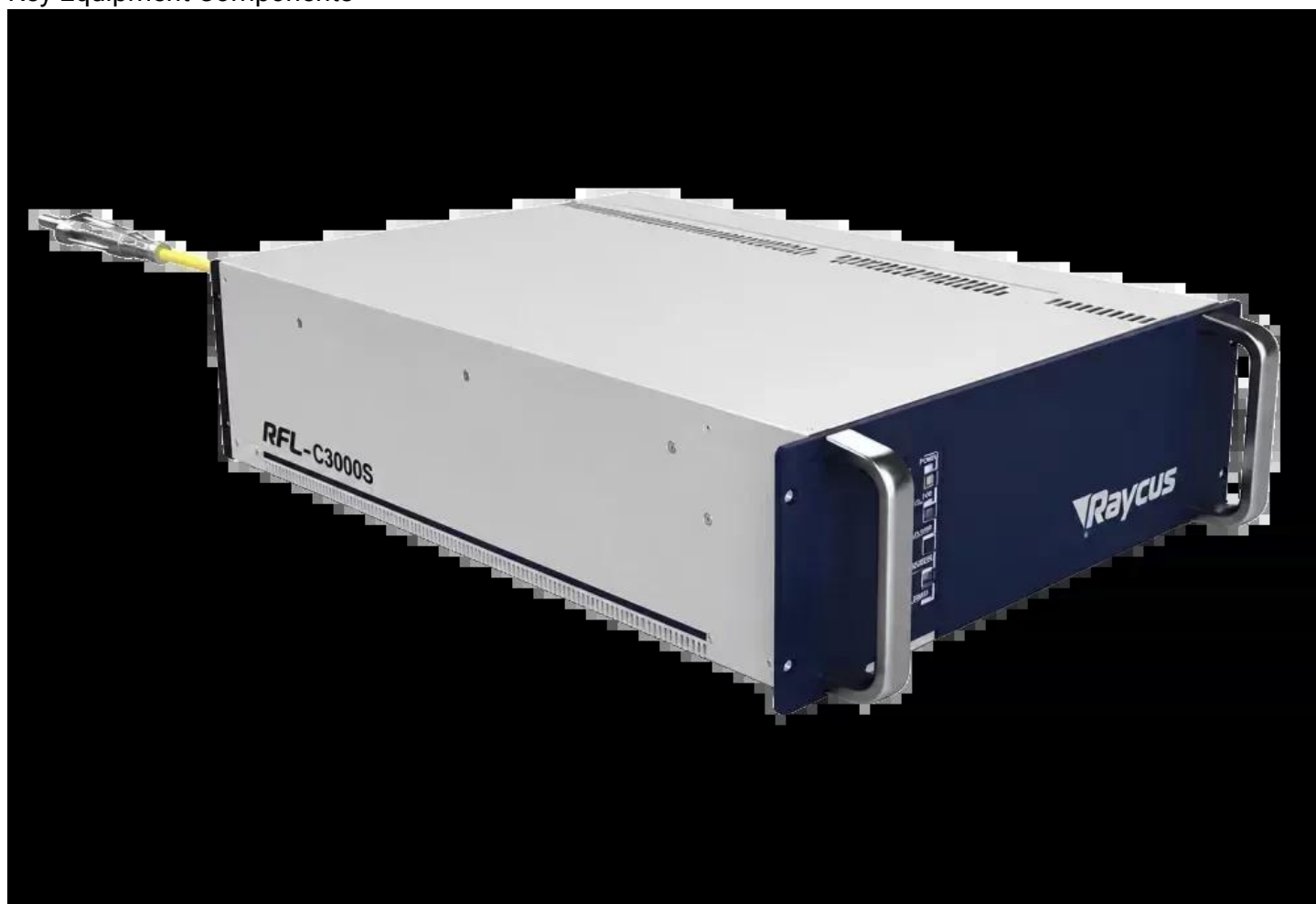
Industrial-grade reliability.



Low Operating Cost

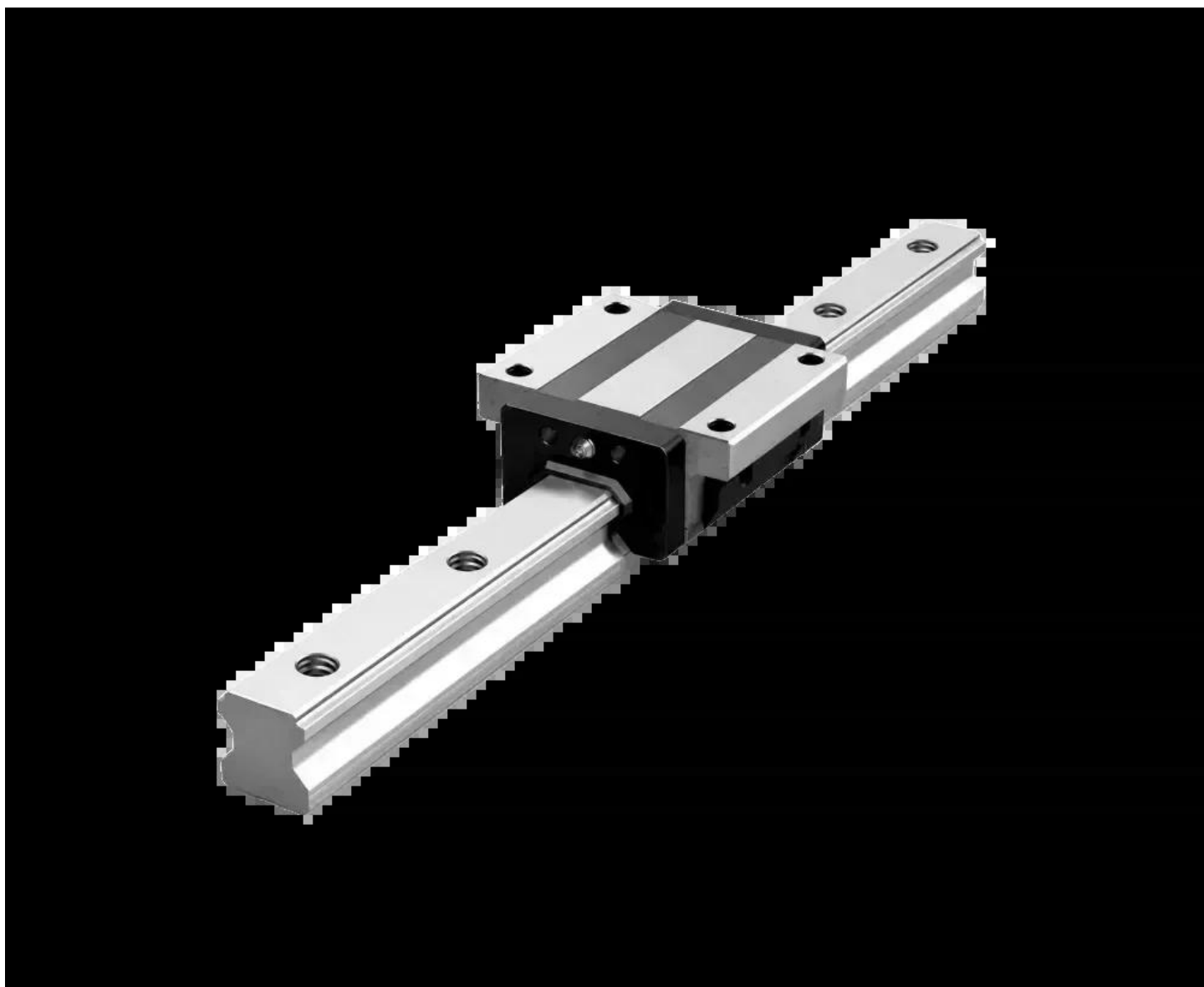
High productivity with cost-effective operation.

Key Equipment Components



RAYCUS Laser Source

The fibre laser source has a compact design, stable performance and broad application range. It is characterised by high photoelectric conversion efficiency, good beam quality and low maintenance costs.



Taiwan Lapping H-Class Linear Guide

Linear guide and block from Taiwan. It provides precise positioning, high performance, energy efficiency and high transmission speed.



Machine Structure

Heavy industrial steel construction, heat treated to ensure stability and resistance to deformation after extended use.



Cutting Head

High-performance Raytools AUTO FOCUS laser head.



Schneider Servo System

Servo system imported from France, including servo motor and servo drive, designed for laser cutting machines.



Shimpo Gear Reducer

The Shimpo servo gear reducer from Japan is characterised by low noise and high operating precision.

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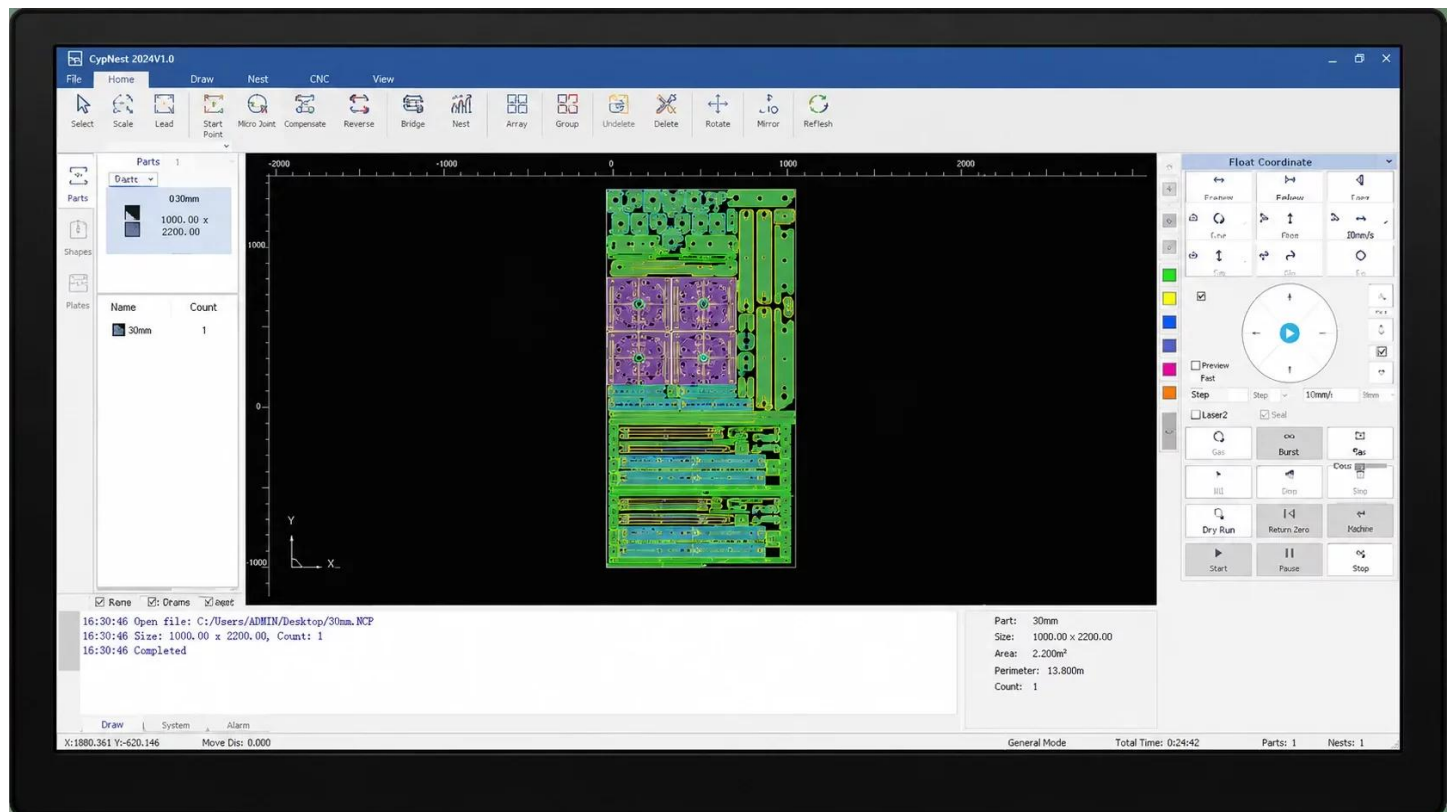




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Proportional Valve

Used in high-power fibre laser cutting machines. It helps achieve very good cutting results when processing thicker materials.



Raytools Control System

A user-friendly control system for high-power laser machines. It supports a rotary device, exchange table and autofocus head.

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TONGFEI / S&A Cooling System

Industrial cooling system supporting stable operation of the laser source and key machine components.

Digima Standard

Operator Safety and Key-Component Protection Included as Standard

As one of the few suppliers on the market, we include standard solutions that genuinely improve operating safety, protect critical machine elements and support stable production in industrial conditions.



Laser Head Guard

The laser head guard protects one of the machine's most important components from contamination, accidental contact and mechanical damage. This practical solution helps maintain stable cutting quality, reduces the risk of downtime and supports a longer cutting-system service life.



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Safety Barriers

Safety barriers create an additional protective zone around the machine's working area. Their purpose is to improve the safety of the operator and people near the workstation. This is especially important during intensive production, where not only cutting speed but also control of the entire process matters.

Full Technical Specification

Model **1530**

Power **3000W**

Laser Wavelength **1080 nm**

Working Area **1500 × 3000 mm**

Repeatability Accuracy **±0.05 mm**

Minimum Kerf Width **0.1 mm**

Working Speed **60–65 m/min**

Power Supply **3P 380V / 50HZ**

Machine Weight **2000 kg**

Product Weight with Individual Packaging **2200 kg**



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Supply Voltage **380 V**
Manufacturer Code **F1530**

Operating Conditions

Operating Temperature **25 ~ 28°C**
Operating Humidity **<70%**
Recommended Operating Temperature **10–35**
Operation at Temperature ≤ 0 **Fill the chiller with water and ethyl alcohol, with the alcohol quantity not exceeding 1/4 of the chiller volume**

Assist-Gas and Power-Supply Characteristics

In the fibre laser cutting process, gas performs both shielding and mechanical functions — it blows molten metal out of the cutting kerf and affects edge quality, processing speed and the cost of producing a workpiece.

O₂

Oxygen

Carbon Steel

- **Pressure:** 1 MPa
- **Purity:** 99.9%
- The exothermic reaction facilitates cutting thicker materials.
- A good solution for precise carbon-steel cutting.

N₂

Nitrogen

Stainless Steel and Aluminium

- **Pressure:** 2.5 MPa
- **Purity:** 99.9%
- Reduces oxidation and edge yellowing.
- Enables rapid removal of molten material from the kerf.

AIR

Compressed Air

Cost-Effective Operation



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- **Pressure:** 1.4–1.6 MPa
- Dry, oil-free air is required.
- Significantly reduces the cost of cutting thinner workpieces.
- Slight edge oxidation may be acceptable.

Recommended Cutting Thicknesses

Cutting Parameters

Indicative cutting thicknesses depending on laser power and material type. The data is for reference only and may vary depending on the gas, lens, material quality and machine settings.

30
25
20
15
10
5



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500W 1000W 1500W 2000W 3000W 4000W 6000W 8000W
non-ferrous metals



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aluminium

stainless steel

carbon steel

i The parameters are indicative and may vary depending on material type, gas, lens and machine settings.