TL serial

3015 / 4015 / 4020 / 6020

Fiber Laser Cutting

Tailift Fiber Laser Cutting

High-Tech! Ultimeate Performance!
Built for high speed, high accuracy laser cutting

Fully Exhibit Extraordinary Laser Cutting Performance

Tailift TL serial

RAYTOOL LASER CUTTING HEAD

Optimized optical configuration and smooth and efficient airflow design.
Auto focus ranges +10~−12mm, accuracy is 0.05mm.
Can be equipped with the D30 lens group, the maximum fiber input power is 12 KW.
Maximum acceleration of focus lens drive 10m/s2, maximum speed 10m/min.
Drawer−type of lens mount, quick and easy access to replace.
Collimation and focusing lens can choose of single lens or lens group, which can achieve the best optical quality and the effect of cutting.
With the optical interfaces of QBH、QD、QCS、LLK−D, etc., can be adapted with a variety of fiber lasers.

Laser Power
1200W~12000W

The back of the device and the switchboard

Leser mech

· Compact, lightweight design.
· Flexible design allows a wide range of spot sizes.
· 14 mm of programmable autofocus to set focus position.
· Temperature sensors protect optics and minimize the chance of overheating.
· Quick, toolless access to the sealed cover glass.
· End-user serviceable focus lens.
· Sealed optics and purge air option.
· Nozzle cooling for use with highly reflective materials.
· Laser pierce, air blast option.

RAYTOOLS Laser Cutting Heads

Modular design with easy maintenance.
Dual water cooling circuits.
Auto focus to reduce human intervention and improve piercing and cutting efficiency.
3 Cover glasses (top, middle and bottom) to protect collimation & focus lens.
IP65 class dustproof, patented cover glass cover plate. All-around dust prevention.

PRECITEC laser cutting head

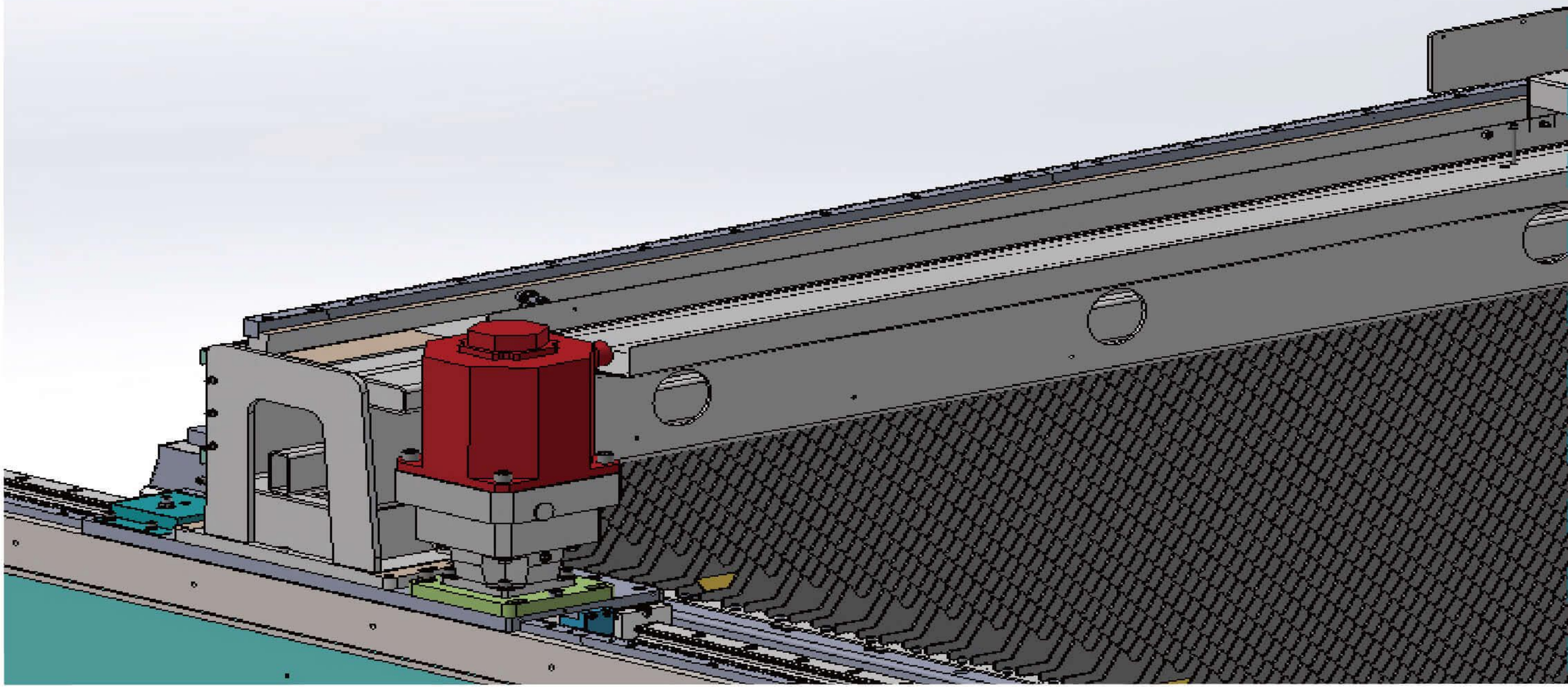
Precitec Efficient - automated - persistent

Maximum productivity thanks to superior technology
With the ProCutter 2.0, cutting processes that were previously hidden away can now be used in an industrially stable manner. It is not necessary anymore to choose between high quality and high speed. Now both are possible - increased machine utilization and a shorter payback period.
The amount of rework is reduced to a minimum.

With the new ProCutter 2.0 generation, the highest cutting speeds can be achieved that were previously unthinkable. The cutting head works trouble-free up to 40 kW laser power thanks to its sophisticated cooling concept and the extended travel paths. If the full laser power is not required, the cutting speed can still be increased by up to 25% compared to the predecessor product due to the optimized design.

Around-the-clock consistent cut quality at high laser power.
With higher laser powers, beam quality and consistency from laser to laser, among other things, experience limitations. The ProCutter 2.0 is also compatible in real terms with all laser sources in the field and offers a higher NA of 0.18. This means that the full power is available for the process. The cutting head is still super compact, lightweight and equally suitable for bevel cutting.

Intelligent sensors at its best
Component quality and process stability remain permanently constant: fluctuations in the process or in the quality of the material to be cut are compensated without the need for intervention by the machine operator. With PierceTec - automated piercing of the material - you achieve consistent hole and surface quality and can reduce the amount of rework required. PierceTec saves cycle time and operating costs.
Smart sensors integrated into the cutting head permanently monitor the condition of critical components or cutting process parameters. The sensors also provide the basis for planned maintenance and efficient utilization of spare parts. This ensures even safer operation and reduces follow-up costs.



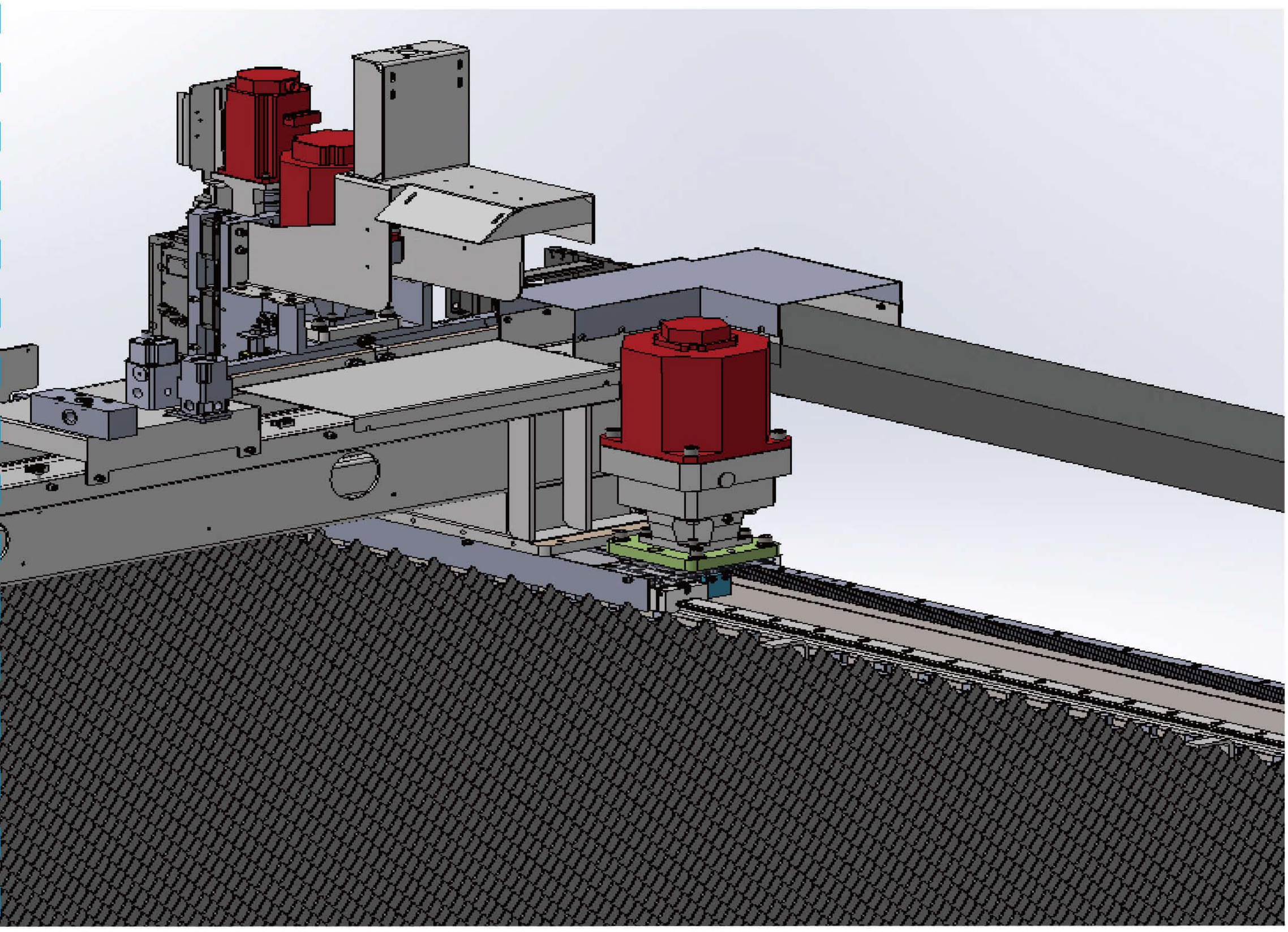
Circuitry

All components comp with CE&UL standard. With high-response and high-resolution 24-bit encoder (16,777,216pulses/rev) Japan YASKAWA Sigma-7 servomotor achieves the highest performance in the industry (compared with other servo brands).

Double dust collection system

The design of the suction pipes on both sides of the center reduces the pipe resistance configuration, and is equipped with an economical and efficient exhaust fan + blower (standard equipment) to achieve a large flow of dust and smoke.

High-efficiency dust collection equipment is optional, and the TL6020 series adopts a follow-up dust collection design.



Smart feed drive

Tailor made design of reinforced welded body which achieves high-acceleration speeds,improve the life of the machine body to ensure long-term operation with accuracy and stability. X and Y axes transmit with Germany STOBER hight-precision gear reducer which gives high installation accuracy, transmission torque,reduced backlash, dynamic characteristics to achieve high-speed cutting possibilities.

Double workbench

Easy to loading/unloading different types and sizes sheet materials, Reduces the machine idle time and increase production capacity. Improve the efficiency of procssing.

IPG Oscillator

Combine with high-power fiber laser with AOC (Active Optical Cable) and semiconductor diodes, the dynamic range is from 10% to full power. Invariant of beam divergence angle or the beam profile over the entire range, which can effectively reduce the damage of optics.

The smallest modular design adopt multiple fiber laser module output tech that can automatically complement each other to maintain the output power during the production process.

The users can replace the modules separately, to shorten the machine downtime.

Raycus Oscillator

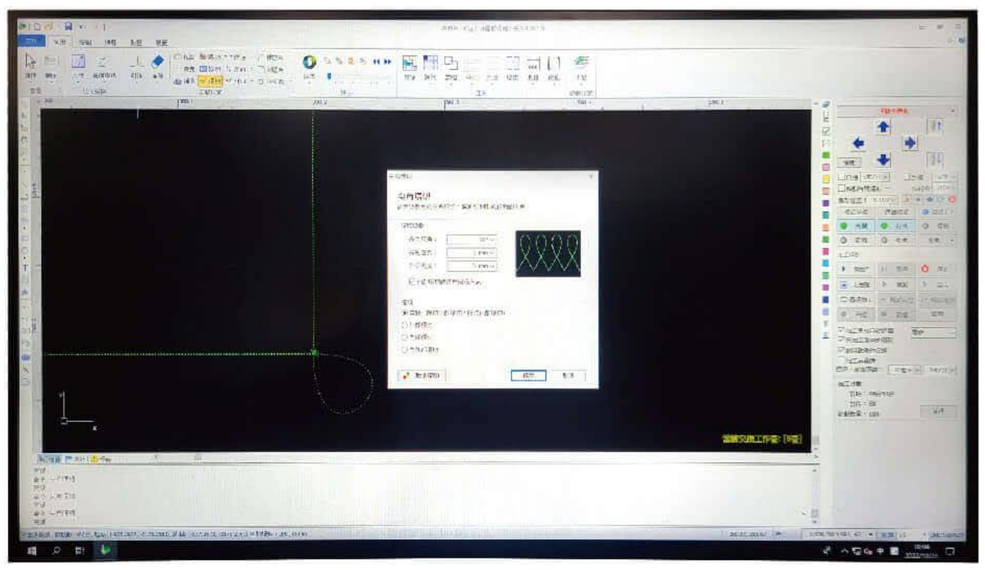
Multi-module continuous fiber laser Raycus Q-switched pulsed fiber laser has the advantages of high peak power, high single pulse energy, and optional spot diameter. It can be widely used in marking, precision machining, graphic engraving, etc. of non-metallic, gold, silver, copper, aluminum resistant to plateau stress It can also be applied to stainless steel materials that are not resistant to plateau stress.

MAX Oscillator

1000W~6000W SINGLE MODULE CW FIBER LASER is a high-power fiber laser with high electro-optical conversion efficiency, compact size, good beam quality and maintenance-free. Wide fiber core diameter range from 100~600um, can be customized from 800um~1000um. Mainly used in metal welding and cladding and other fields such as new energy, 3C, precision machining.

nLight Oscillator

nLight,s semiconductor lasers are the industry,s brightest and operate at unique wavelengths and power combinations. Our high-power continuous wave fiber lasers provide significant advantages over legacy fiber lasers for Programmability, Serviceability and Reliability.Reflection Protection Hardware-based protection provides uninterruoted.
failsafe processing of reflective metals with no damageto the laser.
Modular design simplifies repairs maximizing uptime.



CNC Controller

- Easy to operation interface-user friendly Cutting Correction, burn correction, Punching correction at different processing component.

Cutting technology

- Supports three-stage perforation,segmented or progressive combinations.
- Supports communication control of most mainstream lasers on the market.
- Supports basic processes such as flight cutting,frog jumping, compensation, lead wire, microlinking, pre-piercing, and tape cutting.
- Supports capacitive edge seeking, photoelectric, motorized focus,double exchange table, auto sampling, round tube cutting, power failure memory and other advanced funcityion modules.
- Supports cooling point, sharp corner ring cutting,release corner and other advanced technology.

Controller

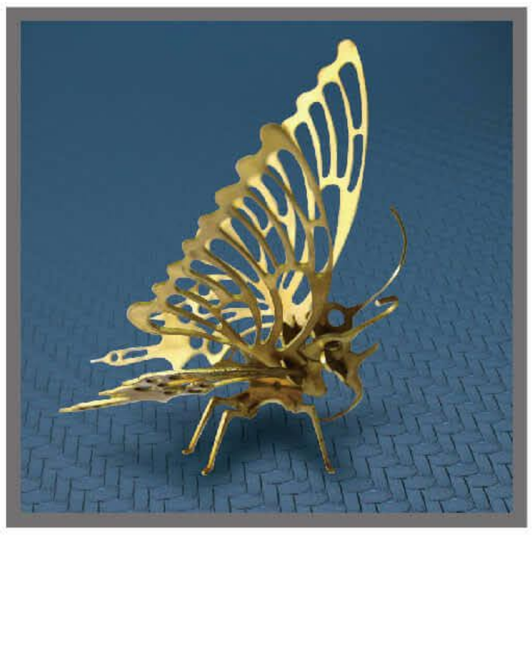
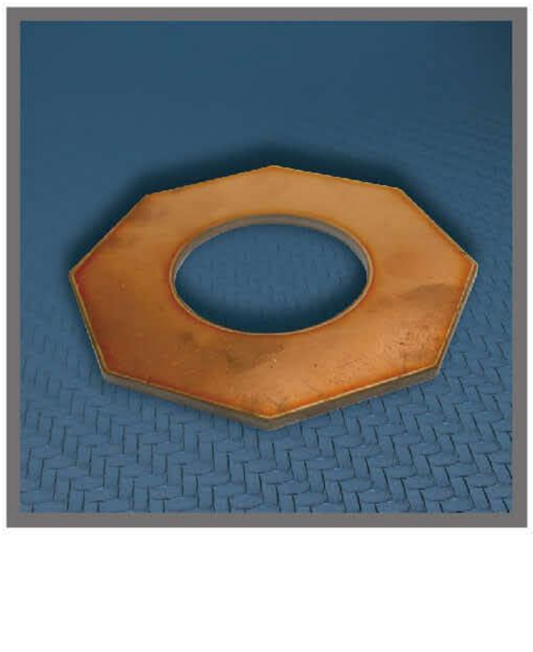
- Swivel operation box is convenient for the operator to operate at different angles. User-friendly operation interface,simple operation,easy to use.
- The cutting sequence is automatically optimized.
- Cutting path simulation,monitor the cutting process at any time. Pseudo-dual drive, suppport dual drive error detection function.

Specifications

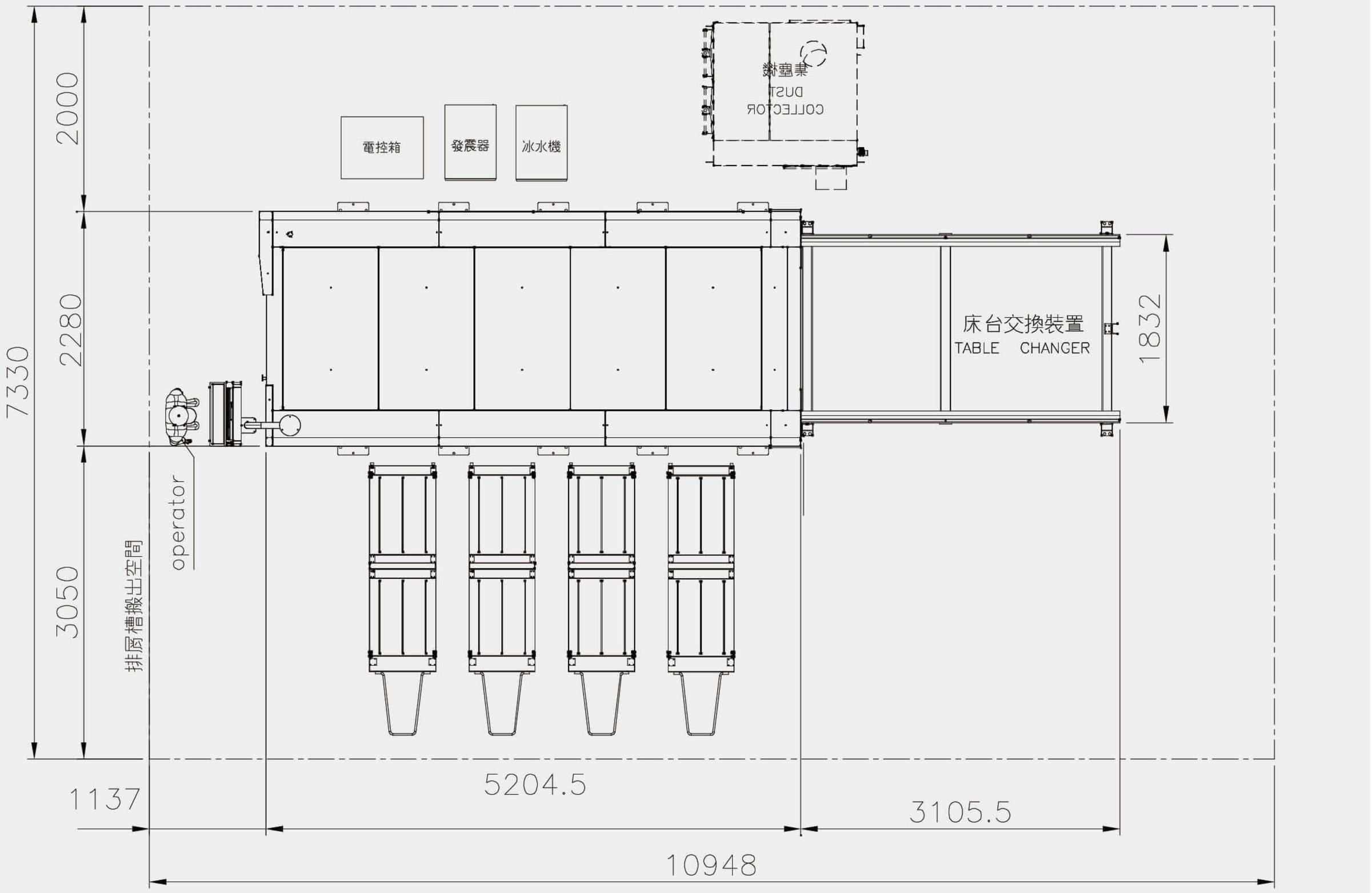
Model	Unit	TL3015	TL4015	TL4020	TL6020
Travel(X*Y*Z)	mm	1525*3050*200	1525*4010*200	2015*4010*200	2015*6050*200
Machining range(X*Y)	mm	1500*3000	1500*4000	2000*4000	2000*6000
Maximum axis movement speet	m/min	80/80			
Feed rate	m/min	110			
Acceleration		1G			
Positioning accuracy	mm	0.05/500			
Repeatability accuracy	mm	±0.02			
Power source		AC3相4線(AC 3ph.4 wires) 220V 60Hz / 380V 50Hz			
Wave length of laser	nm	1080±10			
Machine dimensions(L*W*H)	mm	5470*2333*2160	6480*2333*2160	6480*2880*2160	7490*2880*2160
Table dimensions (L*W*H)	mm	3400*1832*824	4049*1832*824	4049*2372*824	4700*2372*824
Maximum Use range	mm	7840*10950	7840*12610	8380*12610	8380*13620
Chip flute moving out space	mm	2200	2200	2740	2740
Accessory width	mm	2000	2000	2000	2000
User location		870	870	870	870

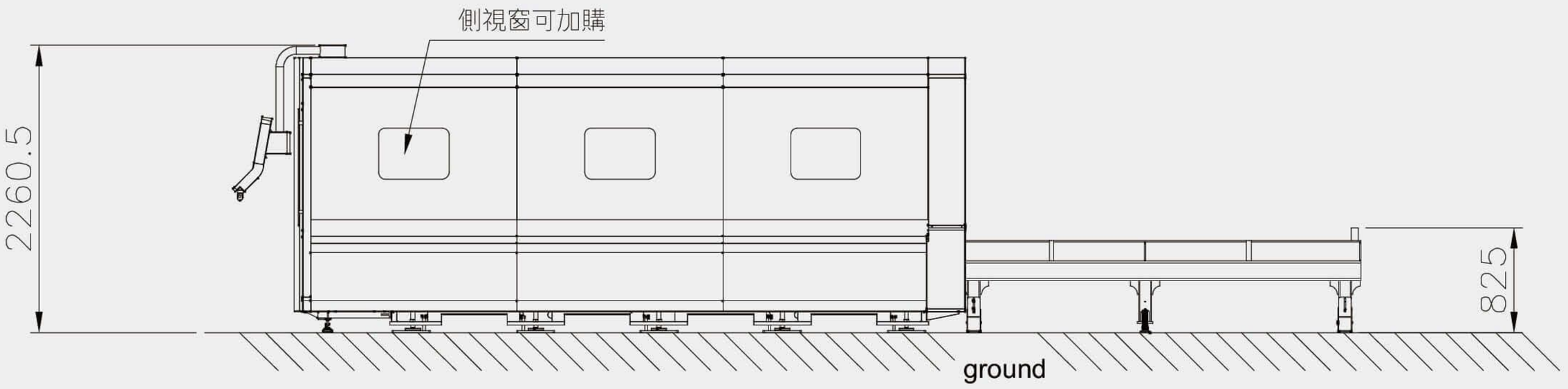
Specifications are subject to change without prior notice.
Cutting speed may vary with the selected focus, fiber code and equipment.

Actual workpiece forming sample

TL3015 / FLOOR PLAN





Unit :mm

Advanced Sheet Metal Processing Equipment
The Most Comprehensive Range

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