

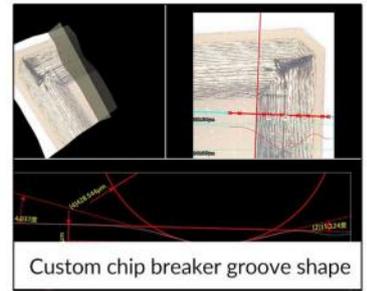
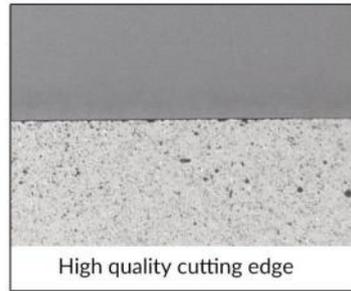
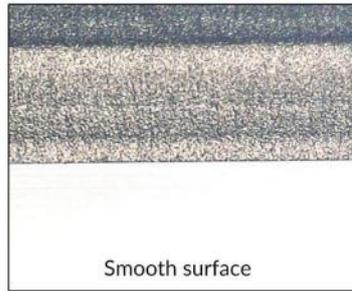
5- Axis Laser Machine For Precision Tool

Designed for PCD, PCBN tools



▶▶▶ **GIVEALASER 1050L**

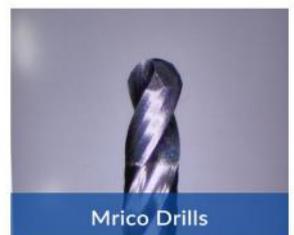
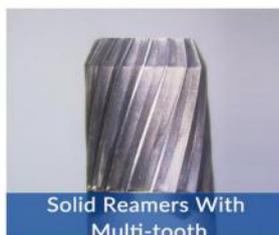
Efficiency & Quality



- Industrial Fiber pulse laser with BOOST mode achieves amazing roughing efficiency, EDM for roughing pre-cutting is no longer necessary
- Sharp cutting edge, which can be control and achieved micron-level tip arc radius, and maintain good chipping state
- Smooth relief face with roughness lower than Ra 0.2

Capabilities

- Design to work on PCDs and CBNs for special cutting tools, suitable for cutting edge and chip-breaking groove
- Work for superhard materials like PCDs, MCDs and PCBNs of various brands on the market
- Maximum tool diameter is about 160mm, It is mainly used for the production of medium and small diameter tools and solid cutting tool processing
- Manual and automatic tool holders(ER collect), with the maximum clamping tool diameter of 32mm

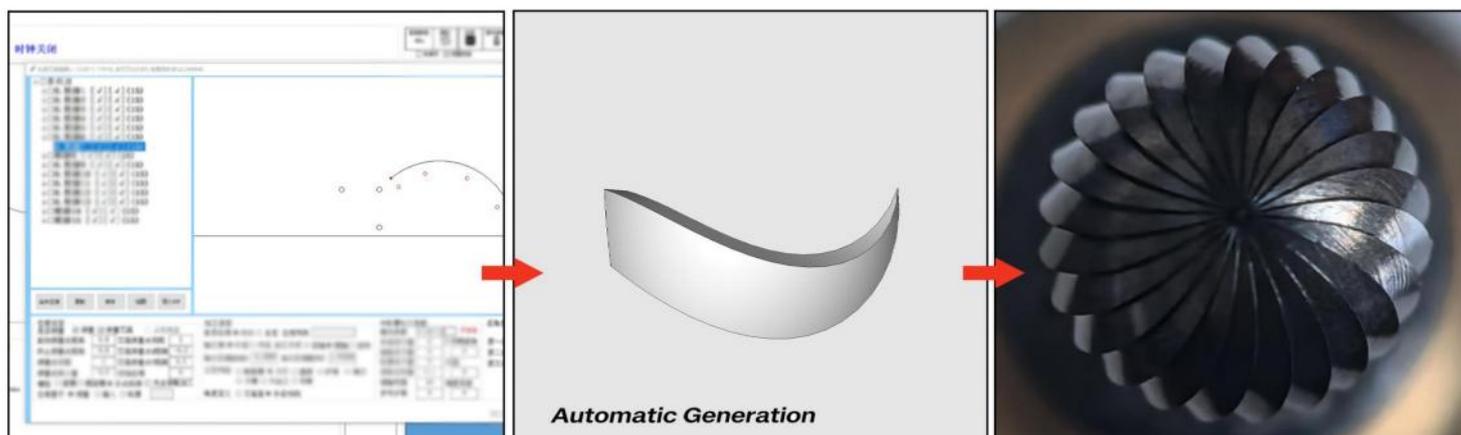


Stability

- The marble bed and mineral castings combined with linear motors further enhance thermal stability and vibration suppression
- Active thermal manage system, can precisely senses and controls the temperature rising of mechanical components during processing
- Using optical feedback control elements, helps to maintain high positioning accuracy and repeated repeatability for a long time

A Easy Way To Solid PCD Tool

- No need to create a 3D model in advance,user-friendly for operators
- Pico laser as standard, capable of processing most hard materials such as diamond, ceramics, and carbide. Femto or nano lasers are also available as option.



Low consumables, Environment friendly

- Dry processing, equipment can be kept clean for a long time, almost no additional maintenance *
- Enclosed processing space, relatively quiet processing environment, automatic dust extraction in processing, no unpleasant dust
- Almost no industrial waste during the processing process except for cutting leftover materials and dust

* The filter needs to be replaced manually

Automation

- Supports on-site Robot Tool Loader systems, enabling fully automated mass production
- Features such as run-out compensation, automatic tool length setting, automatic calibration, and online measurement , significantly enhance production efficiency
- Compatible with various pallet solutions, supporting multiple production modes, including mass production of solid tools

Technical specifications

Machinery:

X-axis: 300mm
 Y-axis: 460mm
 Z-axis: 500mm
 Maximal feed rate: 15m/min
 A-axis: ∞
 B-axis: -45~145°
 Control mode: 5-Axis Linear motor

Optical System:

Galvo scanning system

Air Cleaning:

Air Volume: >400m³/H
 Air Pressure: >5000Pa
 Filter Grade: HEPA level

Laser Source:

Industrial Fiber pulse laser: 50W*(High power available)
 Wavelength: 1030nm
 Pulse Width: <100ps
 Frequency: <1MHz

Options:

Robot Tool Loader/ Robot Tool Loader Station

Accuracy:

Linear Axis Resolution: 0.0001mm
 Rotary Axis Resolution: 0.0001°

Range of Machinable Tools:

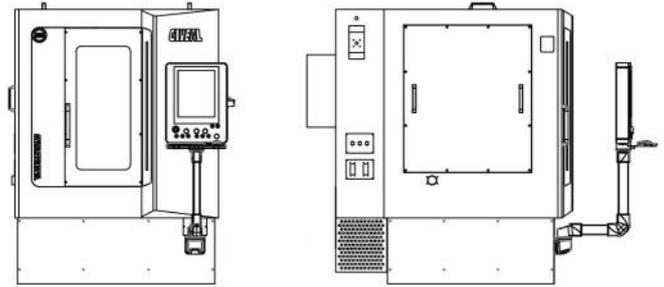
(High-precision)Machinable Diameter**: 0.2~(65)160mm
 (High-precision)Machinable Length***: 0~(140)200mm

Others:

Total Power: 18KVA @ 380V or 200V(±5%) / 50±1Hz
 Voltage: AC 220V and DC 24V
 Current: 63A
 Weight: 5000kg
 Dimensions:1652mm×2670mm×2500mm (High)

Service:

Operation and Maintenance Training
 Provide Tool Program to Customer



*Option

**According to the processing settings (technology and geometry) and model changes.

***Always ask our staffs for the information about newest upgrade.



Tools Web



Equipment Web



Wechat



YouTube