

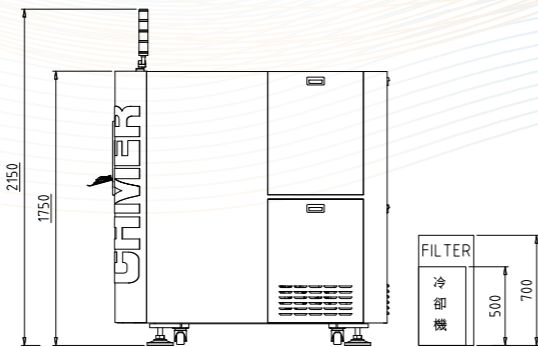
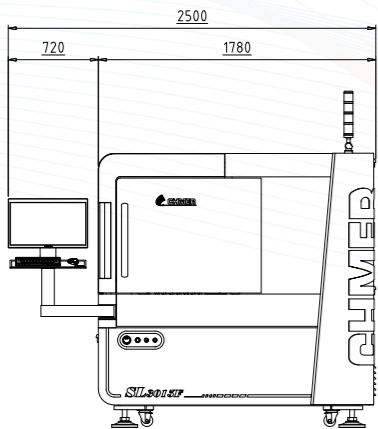
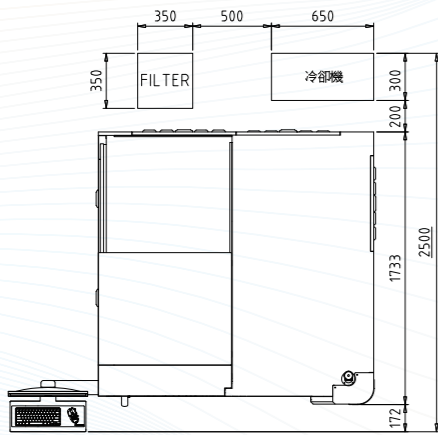
Specifications

Item	Unit	SL3015F
X, Y axis travel	mm	300x150
Z axis travel	mm	25
Processing Area	mm	200x150
Max. weight of workpiece	Kg	15
Net weight of machine	Kg	1980
Max. acceleration	m/s ²	3
Power consumption	kVA	Max. 6
Machine dimensions [WxDxH]	mm	2500x2500x2150
Positioning accuracy	μm	2.4μm
Repeatability	μm	±0.5

Remark: Cutting depth is determined by laser source.

Due to continuous improvements, the design and specifications are subject to change without prior notice

Installation Dimensions



Unit: mm



High Precision Linear Motor Drive Femtosecond Laser Cutting Machine



SL3015F
www.chmer.com

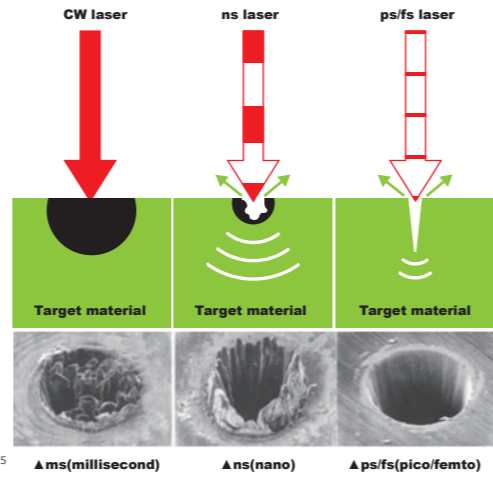
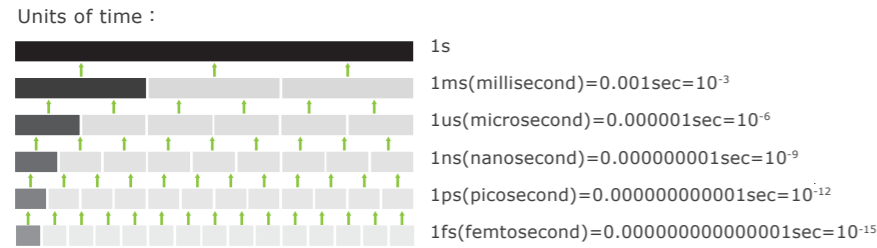




FEATURES

Ultrafast Laser (Cold Processing)

Ultrafast laser, as known as ultrashort pulse laser, is a laser that emits ultrashort pulses of light, generally of the order of femtoseconds to one picosecond. The target material, absorbing ultra-short pulse light energy in a short time, is vaporized in a small area, so no heat is transmitted and no melting or re-solidification marks. The heat effect and mechanical stress is down to minimal and processing quality is excellent.



Granite Work Table

Due to the homogeneous structure, granite is free of residual stresses, so granite worktable has high processing stability. It also has the advantages of high wear resistance, low water absorption rate, high surface hardness, good chemical stability and strong durability. The vibration damping feature is also good so that the external environmental vibration effect is minimal. It is the best choice for precision optical modules.

Linear Motor Drive

Linear motors, designed and manufactured by CHMER, have high response, no backlash, no friction, no vibration, and no energy loss, providing the best motion precision and high efficient processing.

▲ Ball-bar Testing

▲ Laser Calibration

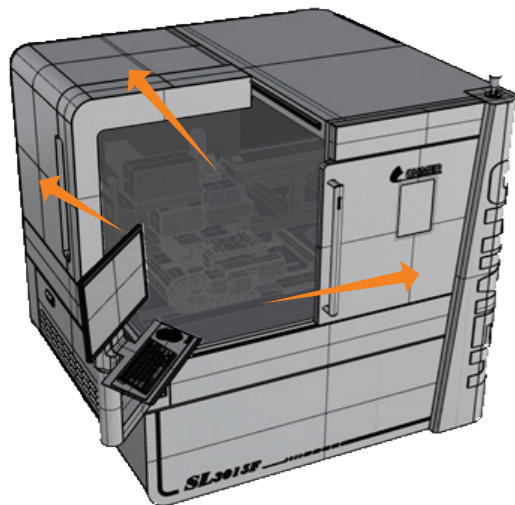
Positioning Accuracy	Repeatability
2.4μm	±0.5μm

Ergonomics and Aesthetics

The machine has the total enclosed design which blocks the hazard gas, refracted and diffracted laser light, and therefore protects the operator.

Machine doors can be opened in front and side, so it has the maximum opening and good for loading and unloading workpiece and maintenance. The installation area is then down to minimal and good for utilization of work space.

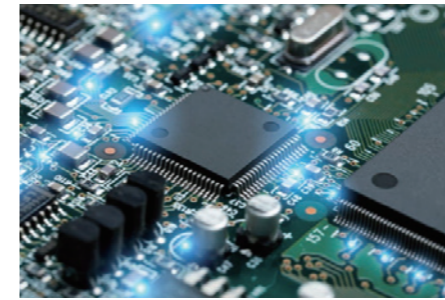
The height of screen is set at 150mm with considering the operability. The exterior design is also aesthetic and has CHMER style.



Applications of Ultrafast Laser

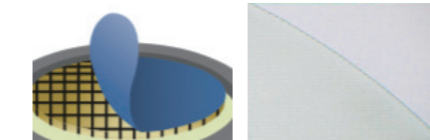
CHMER high precision linear drive femtosecond laser cutting machine is equipped with femtosecond pulse laser. Through precise control of laser beam intensity, time, pulse energy, etc., the target material absorbs short pulse light energy in a short time, and is vaporized in a small area. It is suitable for precision micron level processing on ceramic, Polyimide (PI) film, composite materials, and thin metals.

Applied Industries and Samples



Electronics Industry

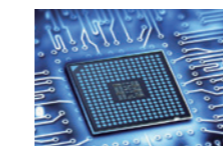
Printed circuit boards, high temperature components, and insulation materials – Polyimide (PI) film



5G backplane or substrate – ceramic

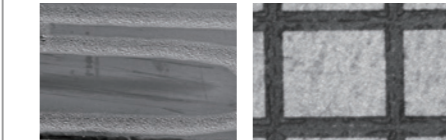


Testing device – probing needles

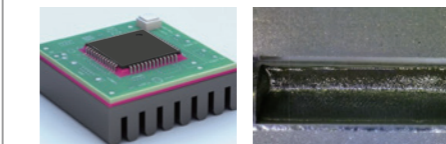


Semiconductor Industry

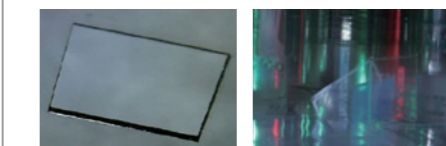
Surface processing, e.g. marking or property change on wafers



Removal of adhesive between material

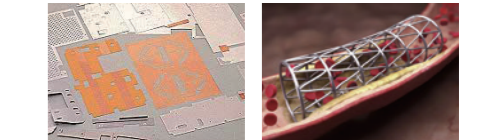


Cutting on PET/ ITO



Other Industries

Cutting of precision medical parts, such as cardiac catheter stents



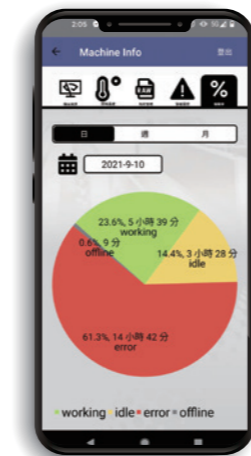
Lens edge cutting



CHMER Intelligent Controller, Remote Monitoring and IOT System (Optional)

The software and hardware of CHMER intelligent controller are designed and manufactured in house. The intelligent functions includes intuitive parameter adjustment, user-friendly operation interface. With robots and workpiece change system, it can realize automated operations.

The all new "Remote monitoring & IoT system", without standing in front of the machine but through various mobile devices, gives you the CHMER cutting edge technology experience. Through mobile devices and APP, machine status, such as working status, utilization rate, consumables life management, and machining image, is monitored.



CHMER i-Connected information management center can view the Kanban information, machine processing history, maintenance notices, utilization rate analysis, etc. in real time.

▲ i-Connected information management center