

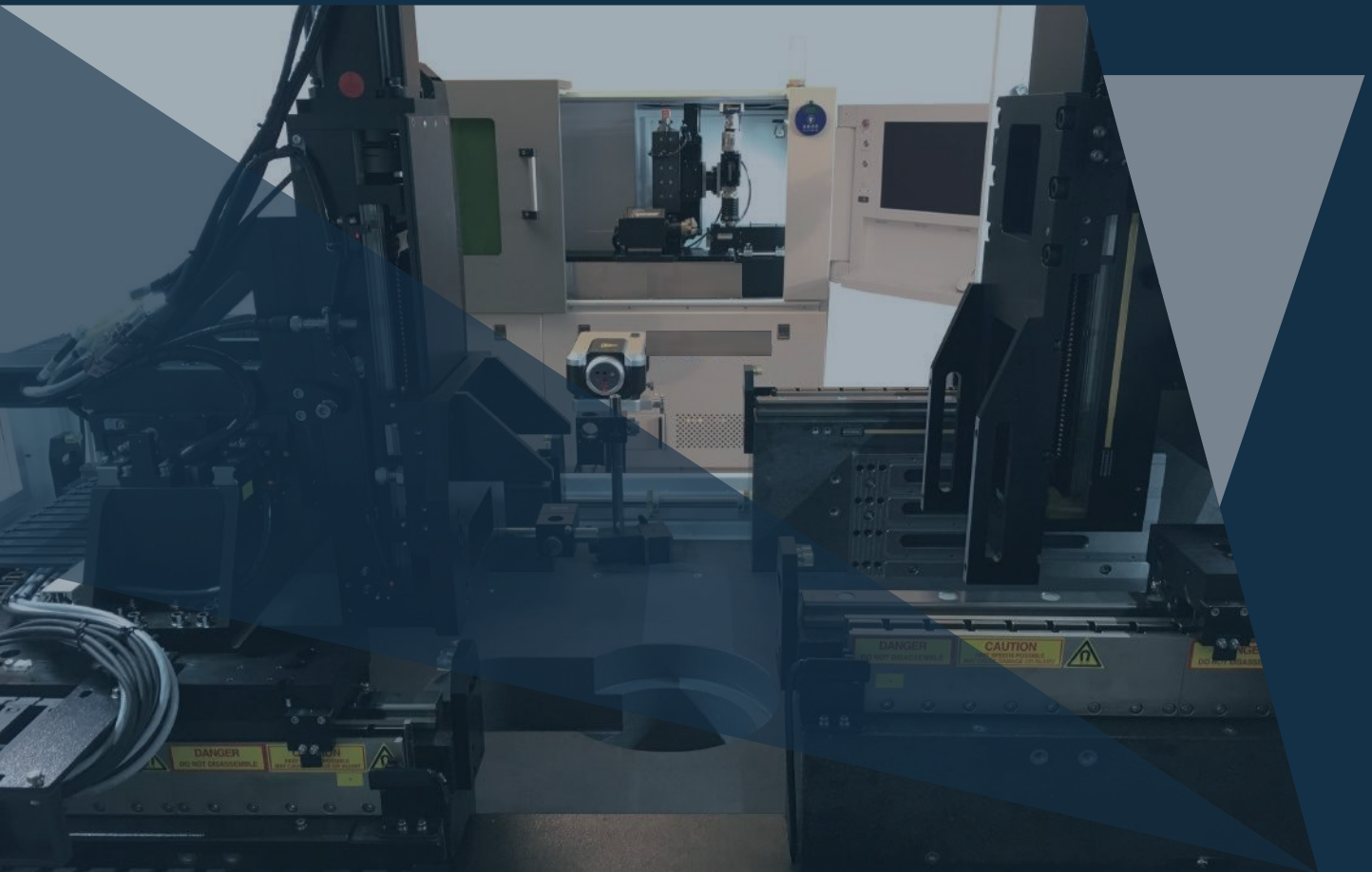


Men-Luck

— Intelligent Technology —

Key function module solution

Laser micromachining system



Changzhou Men-Luck Intelligent Technology Co., Ltd.

PLS Series Precision Linear Axis

Scope of application:

PLS series precision linear axis, mainly used in medical, electronic, automotive, aviation, military, daily hardware and other fields, precision laser micro-machining system, precision machining system, precision measurement system, automation system, to provide high-speed, high-precision linear motion system solutions for tools or workpieces.



PLS100A



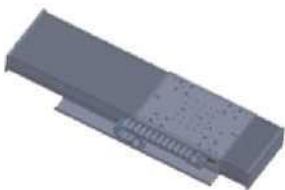
PLS100B



PLS100C



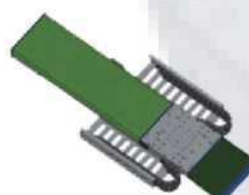
PLS300



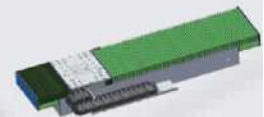
PLS350



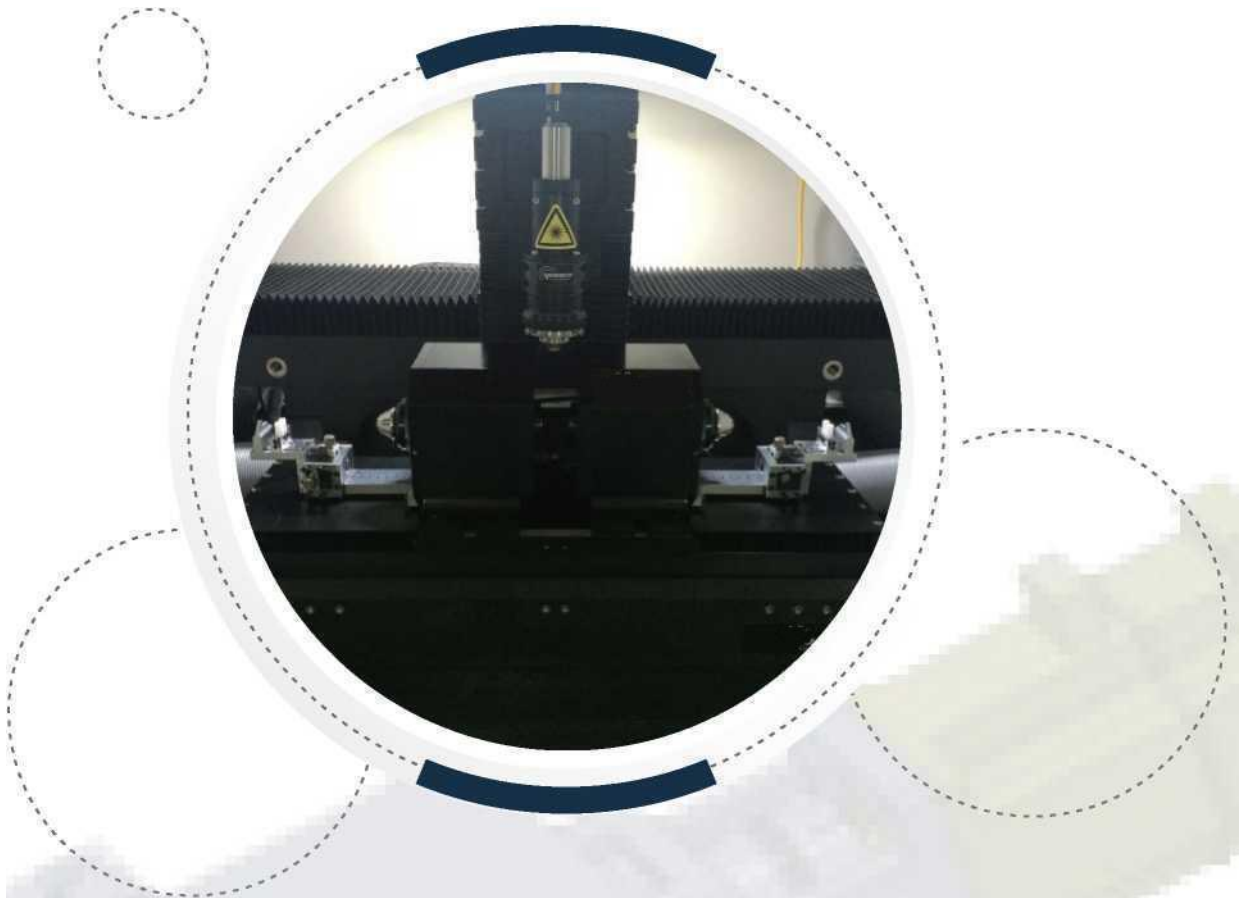
PLS450



PLS600



PLS800



Modular design, mechanical and electrical interface are all with unified standards;

All models of linear axis are easy to quickly build multi-axis motion platform, flexible to meet the diversified market demand of customers;



Product Characteristics

Relying on the technical application and engineering experience of the team in the field of contact & non-contact machining and measuring system, we provide a variety of linear axis products to customers for selection. The stroke, load capacity, precision, speed, drive, transmission, position feedback, protection requirements, etc. can be customized by customers, so as to minimize the cost on the premise of meeting different application requirements;

It is easy to disassemble and maintain, and can provide precise motion control engineering support in mechanical, electronic control and software applications;

PRA Series Precision Rotatable Axis

Scope of application:

PRA series precision rotatable axis are mainly used in laser micro-machining system of precision thin-walled tubes in medical, electronic, automotive, aviation, military, daily hardware and other fields.



PRA-C-8



PRA-F-D-8



PRA-R-D-8



PRA-F-ER-16



PRA-R-D-S-8



PRA-H-S-40



PRA-B-S-40



PRA-H-S-8

Product Characteristics

Support the selection of D-type precision chuck & ER series precision chuck & three-jaw chuck and other precision thin-walled tube clamping methods;

Built-in direct-drive rotary motor & high resolution circular grating position feedback & full-closed loop control, the rotation speed can reach up to 600 rpm, and the rotation repetitive positioning accuracy is ± 3 arcsec;

Provide precision rotatable axis front and rear end follow-up support fixture & tail length monitoring and other matching functions;

The sealing protection grade is IP65;



The hollow design supports the pneumatic automatic control of the front top type and the back pull type chuck, which is convenient to realize the continuous automatic feeding, accurate high speed and high precision motion control;

The precision thin-walled isodiametric round pipe at the range of 00.1mm-060mm, the clamping range of elliptical pipe square pipe is 40mm * 40MM, and the wall thickness of the clamped pipe is 0.02mm-3mm;

We support forward customized design of precision rotatable axis & precision rotary chuck & matching self-adaptive proximal guide clamping fixture for tolerance variation of outer diameter of precision thin-walled tube;

Modular design, compact structure, light weight, small size, easy disassembly and application;

PMT Series Precision Motion Platform

Scope of application:

PMT series precision motion platform is mainly used in precision laser micro- machining system, precision machining system, precision measurement system and automation system in medical, electronic, automotive, aviation, military, daily hardware and other fields, providing high-speed and high-precision motion system solutions for tools or workpieces.



GPM6



PMT6045



PMT-G-300



PMT4030



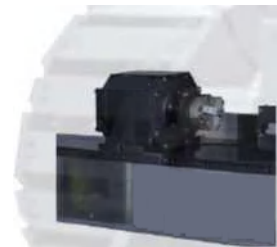
PMT600-16



PMT600-S-8



PMT300-8



PMT300-10

Product Characteristics

We can provide 1 ~ 6 axis of various types of combined precision motion platform, mainly linear axis & rotatable axis module, X θ superposition type & XY superposition type two axis motion platform, XYZ rectangular coordinate type & XYZ fixed gantry type & XY θ combined three axis motion platform, moving gantry type & XYZ θ combined four axis motion platform, "XYZ + double rotation axis" or "double X + YZ θ Combined" five axis motion platform", "XYZ + three rotation axis" or "double X + YZ + double rotation axis combined" six axis motion platform, etc;

It can be equipped with welding steel frame base, granite platform, appearance metallic parts, laser cutting head, control system, laser micro-machining software system and other open integration modules;

Provide technical support and training services for mechanical, electronic control and software in precision motion control;



Modular design, each axis or matching clamping system, servo support are independent modules, mechanical and electrical interfaces are standardized, easy to disassemble and integrate;

We support the customized design of non-standard precision motion platform;

FCH Series Fine Laser Cutting Head

Scope of application:

FCH series fine laser cutting head is mainly used in laser micro-machining system of laser cutting, drilling, slotting, scribing and blind engraving for medical, electronic, automotive, aviation, military, daily hardware etc. hard brittle materials, alloy materials, stainless steel etc. metal and non-metal precision thin-walled tube & sheet & regular three-dimensional instruments.



Modular design, focusing lenses & protective lens of focusing lens & cutting nozzle module can be separated and installed with CCD coaxial monitoring & Mirror & laser incidence interface module, compatible with soft and hard optical system, seamless connection;

Equipped with collimation protection lens, support the quick change function of the installation module of the focus lens protection lens with the focal length of 80mm and above;

Compatible with QBH and QCS laser output head interface, pointed and flat cutting nozzle;

The sealing protection grade is IP65;



01 It is suitable for the application of nanosecond, picosecond and femtosecond laser fine machining with infrared laser power less than 1500W and UV & green laser power less than 100W;

02 It supports straight through & 90 ° turning coaxial CCD installation, real-time monitoring processing status function, independent monitoring interface & clear picture & no jamming;

03
04
05 Compatible with 40 ~ 120mm focus lens, the maximum range of focus lens adjustment is 3mm;

06
07 It provides 1 ~ 4 gas access interfaces, to withstand the peak pressure of 2.5MPa;

08
09 The structure is compact, light and convenient for disassembly and installation.

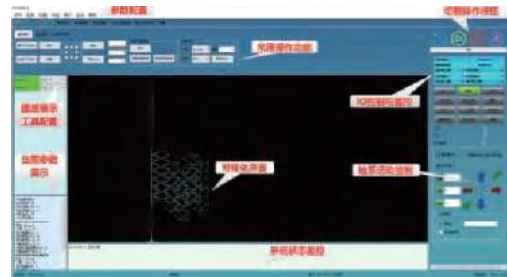
Precision Laser Micro-machining Software System

Product introduction:

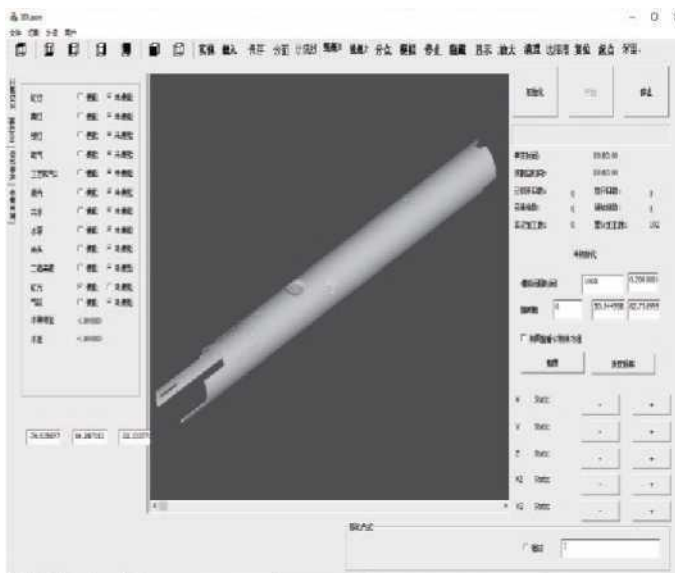
Precision laser micro-machining software system is mainly composed of two series of products: TLC, which is used for the three axis, four axis and five axis laser micro-machining of precision thin-walled tubes; and PLC, which is used for precision plane & regular surface instruments. It is used in laser micro-machining system of laser cutting, drilling, slotting, marking and blind engraving in medical, electronic, automotive, aviation, military, daily hardware and other fields.



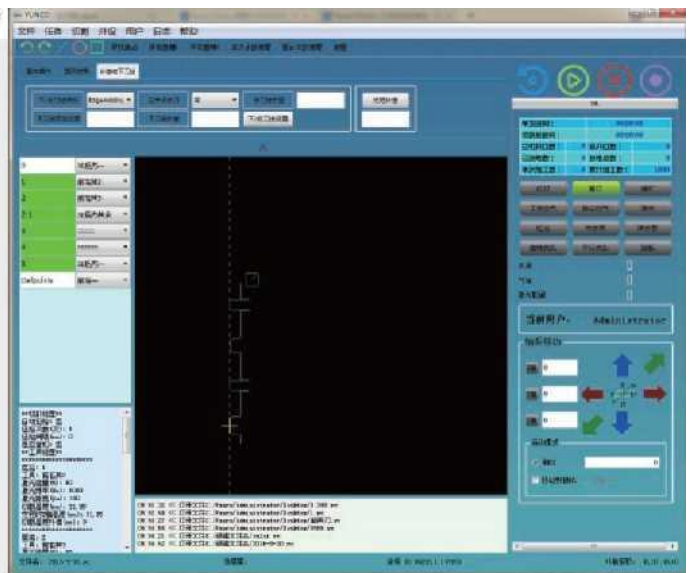
PLC 2D&2.5D
Laser Micro-machining Software System



TLC 2D&2.5D
Laser Micro-machining Software System



TLC&PLC 3D
Laser Micro-machining Software System



TLC&PLC 2D&2.5D
Laser Micro-machining Software System

Product Characteristics

01

Friendly interface & strong visualization ability: simple interface, easy operation, with a variety of 2D & 2.5D & 3D versions, can support DXF & DWG & STP & IGS format file import, can identify G code file, after importing external files, can optimize the original image by itself;

02

Powerful process development library: provide diversified parameter configuration and professional debugging production functions for various kinds of precision thin-walled tube, plane & regular curved surface instruments, support segmented blind cutting, segmented perforation, progressive perforation processing, and provide personalized customization functions for laser power, frequency, pulse width, process gas type, air pressure, cutting height, etc. in the processing process, and can provide customized function module development;

03

Process parameters are refined to characteristics: each characteristic is supported to use different laser parameters and motion parameters for interlinked laser micro-machining;

04

Support fixed height and follow-up cutting: according to different processing characteristics, self compensation error & axis setting is allowed, and the focus position can be adjusted in real time according to the height difference change of regular processing surface to ensure the stability of focal length. In the process of machining, multi-channel process gas real-time switching is provided, and the opening and closing state of process gas can be set at a fixed point;

05

Support intelligent optimization of cutting trajectory: including manual, automatic sequencing, intermediate insertion and grouping processing;

06

Powerful auto-feeding function & overrange cutting function: it can meet the needs of super long tube machining, and support the dry and wet cutting function of different tubes;

07

Powerful machine status monitoring and alarm function: it can real-time monitor IO status such as air pressure and water pressure and abnormal state of the machine, and provide real-time alarm and record of abnormal state;

08

Support logging function: the software supports local records and cloud records, ODBC database connection, real-time upload data to the server;

09

Optional machine vision system: it can meet the traditional single-mark point to multi-mark point alignment, and can realize accurate positioning according to the contour or graphic features of the tube, and the alignment accuracy can reach less than 0.01mm;

It can cooperate with the manipulator to realize the automatic loading and unloading function: the software itself is highly variable, and the automatic expansion scheme can be made according to the different needs of customers;

Provide flight cutting function: can effectively improve the machining efficiency of all kinds of hole pattern cutting on large format;

Support three levels of user authority management: developer authority, technician authority, operator authority, different levels of authority are different.

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Do what you say and keep your promise



Men-Luck

— Intelligent Technology —

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