



激光打标机 LASER MARKING MACHINE

X系列 T系列 H系列 X/T/H SERIES

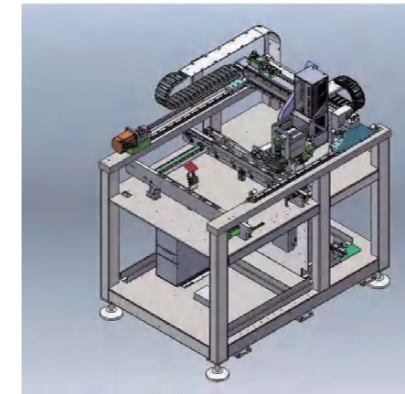
- 激光头: 进口激光器高稳定、寿命长
Laser Head: Imported laser with high stability and long life
- 智能化系统: 智能防错码/重码标准MES接口, MES定制开发
Intelligent System: Intelligent error prevention code/repeated code standard MES interface, custom MES development.
- 高精度定位系统: $\pm 0.02\text{mm}$ 重复定位精度
High-Precision Positioning System: $\pm 0.02\text{mm}$ repeated positioning
- 净化系统 (选装): 自动化高性能净化系统
Purification System (optional): Automated high-performance purification
- 智能相机系统: 智能CCD视觉定位, 智能识别2D code
Intelligent Camera System: Intelligent CCD visual positioning, intelligent recognition of 2D codes.
- 控制系统: 基于德中高精度切割系统开发
Control System: Developed based on a high-precision cutting system from DZ group

产品优势 PRODUCT FEATURES

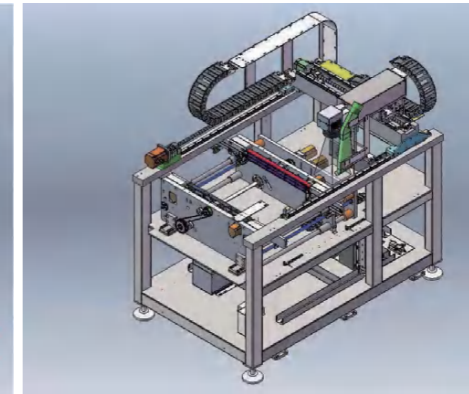
- 无耗材、无污染
No consumables, No pollution
- MES连接自动获取工单序号
MES connection obtains the work order number automatically
- 软件界面人性化, 操作简单易学
Humanized software interface, easy to operate
- 全系可搭载CO₂/紫光/绿光/光纤激光器
The whole series can carry CO₂/violet/green/fiber laser
- 装配高性能振镜, 加工精度高、打码速度快、激光能量波动稳定
Assembly with high performance configuration, high machining precision, fast marking speed, stable laser energy fluctuation

<p>X板识别功能 X-Board Recognition Function</p>	<p>内置Z轴, 定深可控 Built-in Z-Axis with Adjustable Depth</p>	<p>更多功能 More Functions</p> <table border="1"> <tr> <td>防重 防呆</td> <td>条码等 级测试</td> </tr> <tr> <td>MES 连接</td> <td>等多....</td> </tr> </table>	防重 防呆	条码等 级测试	MES 连接	等多....
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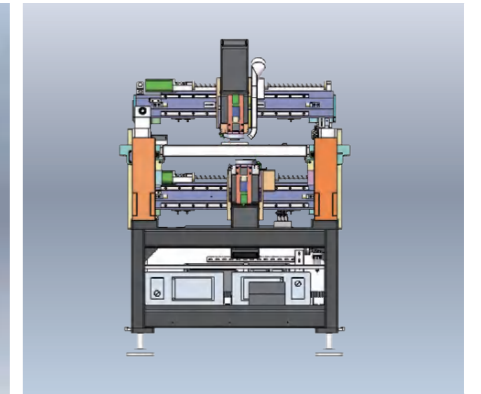
设备结构 EQUIPMENT STRUCTURE



轨道传送
Track transfer



内置翻板
Built-in Flip function

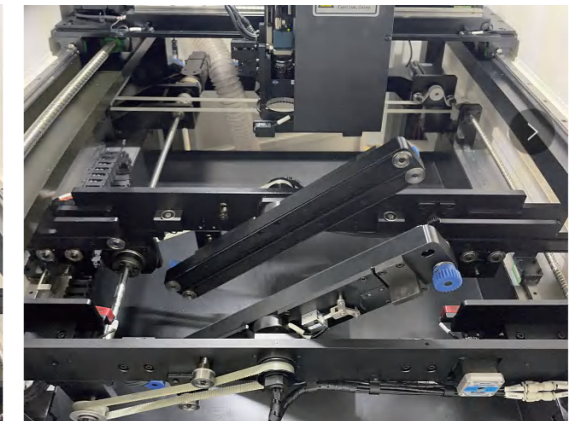


上下头双面刻印
Double-sided marking with Top and Bottom laser heads

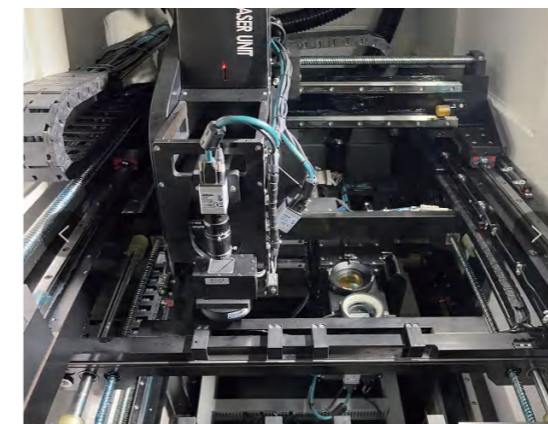
设备结构可选配置 OPTIONAL CONFIGURATIONS FOR EQUIPMENT STRUCTURE



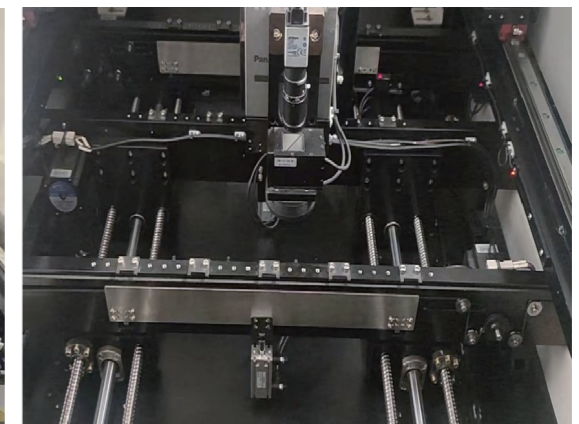
一段式标准设备
Single-stage Standard Equipment



三段式内置翻板
Three-stage Built-in Flip Mechanism



上下头同步打码
Top and Bottom Heads Synchronized marking



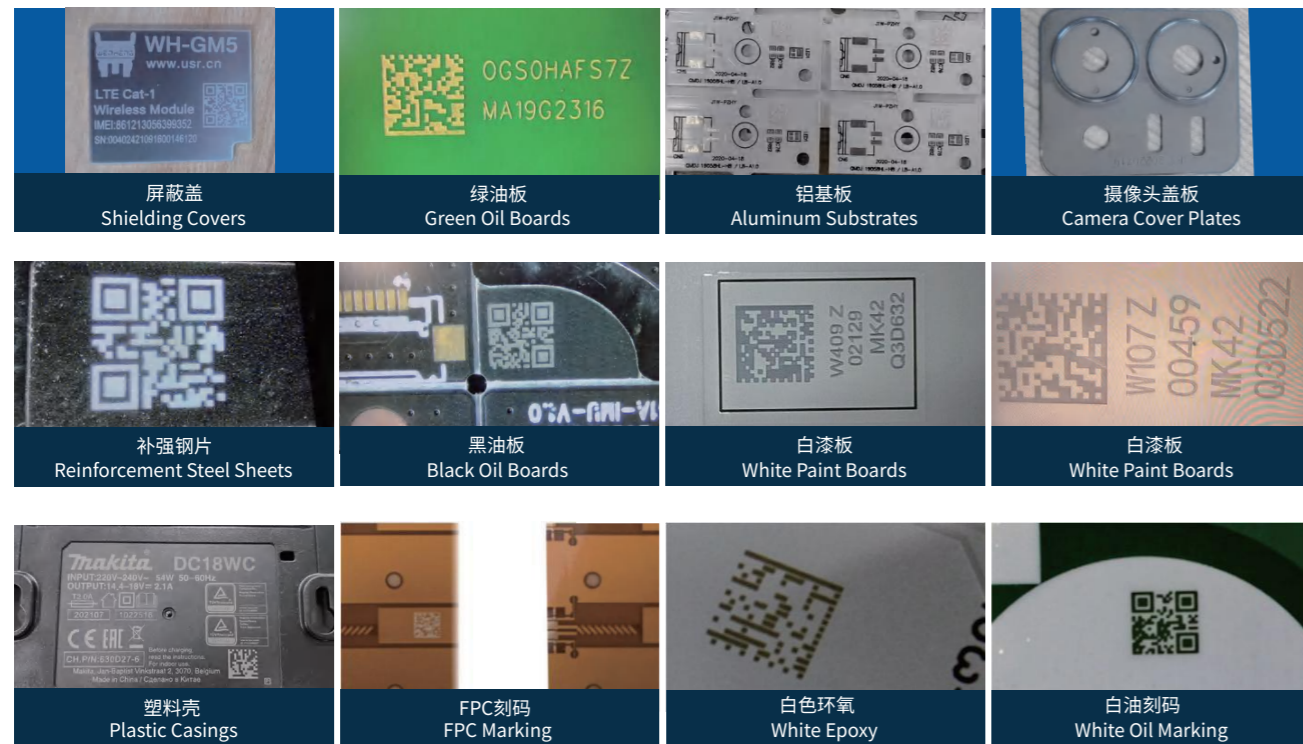
单头双轨设备
Single-head Dual-track Equipment

应用领域 APPLICATION FIELDS

用于在PCB白油、绿油、黑油、蓝油、红油板，以及补强钢片和屏蔽盖产品上标记一维码、二维码、文字等信息，并可以在标记完成后进行读取验证。
It is used for marking one-dimensional codes, two-dimensional codes, text, and other information on PCB white oil, green oil, black oil, blue oil, red oil boards, as well as reinforcement frames and shielding cover products. It can also read and verify the marking after completion.



应用场景 APPLICATION SCENARIOS



设备参数 EQUIPMENT PARAMETERS

设备型号 Model Type	30系列 (Series)	45系列 (Series)	50系列 (Series)		
镭射类型 Laser Type	CO ₂ /Fiber/MOPA/UV/GR				
光斑直径 Beam Diameter	CO ₂ :0.13mm / Fiber:0.07mm / UV:0.04mm / GR:0.06mm				
工作方式 Working Method	镭射移动 Laser Move	镭射移动 Laser Move	镭射移动 Laser Move		
激光照射范围 Laser irradiation range	CO ₂ :50mm×50mm / Fiber:150mm×150mm / UV:200mm×200mm / GR:200mm×200mm				
重复定位精度 Repeat positioning accuracy	±20μm				
定位系统 Positioning System	CCD + MARK 定位/CCD + MARK Positioning				
条码检测 Barcode Detection	CCD在线检测/CCD Online Detection				
PCB厚度 PCB Thickness	0.5mm-7mm				
PCB通过高度 PCB Maximum Size	UP:25mm DOWN:25mm				
薄板防翘压系统 Anti-warping anti-press sheet system	支持(上下夹板)/YES				
轨道传输方向 Track transmission direction	L-R / R-L / L-L				
轨道宽度调整 Track width adjustment	自动/Auto-adjustment				
刻印对象*种类 Laser Object* Type	英文大写、英文小写、数字、片假名、平假名、汉字、符号、用户保存文字(最多可设定50种) English uppercase, English lowercase, numbers, Katakana, Hiragana, Chinese characters, symbols, user protection text (maximum of 50 types can be set)				
	条形码 Barcode CODE39、CODE128、ITF、NW-7、JAN(EAN)/UPC				
	二维码 QR Code QR码QR微型码OR码、数据矩阵、GS1数据矩阵/R miniature code, IQR code, data matrix, GS1 data matrix				
图形数据 Graphic Data VEC※4、DXF、BMP、HPGL、JPEG、AI、EPS					
软件 Software					
软件界面 Software Interface	中英文优化界面/Chinese-English Optimized Interface				
防呆功能 Error Proofing Function	PCB反向/反面/错料等自动识别/PCB reverse, wrong material automatic identification				
选择性打码 Selective Marking	识别BAD MARK, 不良自动跳过/ BAD MARK Identification and auto skip				
条码数据来源 Barcode data source	SHOPFLOW, MES, IMS, PMS, 数据库, U盘, 本机设置条码原则, 数字, 时间流水号 HOPFLOW, MES, IMS, PMS, Database, U disk, the machine set bar code principle, number, time serial number				
系统连接功能 System Connection Function	可连接SHOPFLOW, MES, IMS, PMS, 等管理系统/Access to Shopflow, MES, IMS, PMS and other management systems				
资料库 Data base	每个Model均可存档, 再次生成时直接调用/Each Model can be saved and regenerated directly				
刻印角度 Engraving Angle	0-360°				
其它 Others					
输入电压 Input Voltage	AC220V 50/60HZ				
气压源 Air Pressure	≥0.5MPa				
环境要求 Environmental Requirements	5~40°C, 30~80Rh				
设备功率 Equipment power	2KW	2KW/2.5KW	2KW		
最大尺寸 Maximum size	CO ₂ (A/AF/AD/AS)	450mm*450mm	450mm*450mm	450mm*450mm	450mm*300mm
	UV (U/UF/UD/US)	450mm*300mm	450mm*300mm	510mm*300mm	600mm*300mm
	GR (G/GF/GD/GS)	450mm*450mm	450mm*450mm	450mm*450mm	450mm*300mm
	Fiber (F/M/FF/MF/FD/MD/FS/MS)	450mm*450mm	450mm*450mm	450mm*450mm	450mm*300mm
大尺寸: (A/U/G/F/M)	520mm*520mm	510mm*510mm	520mm*520mm	600mm*600mm	
选配 Optional Accessories	烟雾净化器/Smoke Purifier				
	MES系统对接/次; MES System Integration/time				
	单轨翻板/Single-track Flip Mechanism				
	单轨双头/Single-track Dual Head, 双轨双头/Double-track Double Head				
	同打同读(侧面相机) /Simultaneous Marking and Reading (Side Camera)				
激光器Z轴/Laser Z-Axis					
底部读码(基恩士SR700, 不支持识别打码等级) /Bottom Code Reading (Keyence SR700, does not support identification of code grades)					
底部读码(基恩士SR1000, 可显示识别打码等级) /Bottom Code Reading (Keyence SR1000, can display identification of code grades)					
UV/光纤摆动同轴镭雕大相机读码/UV/Fiber Swinging Coaxial Laser marking Large Camera Reading					
设备尺寸 Equipment size	30系列(880*1470*1570mm)	45系列(970*1560*1570mm)	45系列(AF:1000*1560*1570mm)	50系列(1080*1580*1570mm)	
激光规格 Laser Specifications					
镭射类型 Laser Type	CO ₂	Fiber	UV	GR	MOPA
激光波长 Laser Wavelength	10.6μm	1064nm	355nm	532nm	1064nm
激光功率 Laser Power	5W/10W	20W/30W/50W	3W/5W	7W/10W	20W/30W/50W
激光冷却方式 Laser Cooling Method	风冷/Air Cooling	风冷/Air Cooling	水冷/风冷 (Water Cooling/Air Cooling)	水冷/风冷 (Water Cooling/Air Cooling)	风冷/Air Cooling
激光等级 Laser Class	Class4	Class4	Class4	Class4	Class4