

# 激光模具烧焊机（手动激光焊接机）

## Mould welder / Laser welder series

### 原理 Principles

激光模具烧焊机是通过激光瞬间产生的高热能将专用焊丝熔接到模具的破损部位，与原有基材牢固熔接，焊后经电火花、磨削等加工成光面，从而修补模具。奥华激光模具烧焊机是依托多年的激光焊接开发经验，专为模具行业量身定做的专用机型。对模具砂眼、裂痕、崩角、及磨损等微小部位进行精密修补。广泛用于手机、数码、汽车等模具行业，可补各种模具钢、铍铜、紫铜和极硬合金材料。热影响区域小，不会导致精密模具变形。焊接深度大，焊接牢固。溶化充分，不留修补痕迹。溶池溶料凸起部份与基体结合处无凹陷现象。Laser mould welding machine is use the high energy of heat that instantaneously produced by laser to melt the special-purpose welding wire and connect it with the damaged parts of the mould , so it can connect with the original material firmly, after that there will form a refacing by electric spark and grind & cutting and some other processing and so the mould is repaired. Aohua developed special type of laser mould welding machine for mould industry on the base of several years' experiences of laser welding development. It can repair tiny parts of the moulds such as blisters, crack, burst pieces and attrition precisely. It is widely used in the industries of mobile phone, digital, car and so on. It can repair all kinds of mould steel, beryllium copper, red copper and extremely hard alloy material. Small heat affected zone can avoid mould deformation. Deep welding makes the connection firm. Sufficiently melting leaves no repairing traces and no concave slot on the joint between raised part and matrix

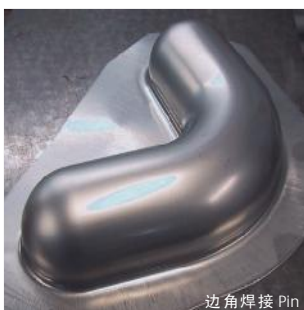
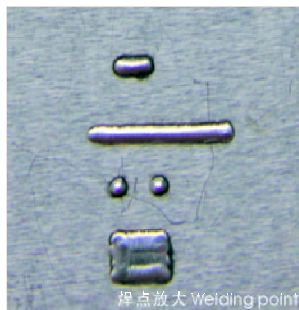
### 产品应用 Product application

主要用于S136, SKD-11, NAK80, 8407, 718, 738, H13, P20, W302, 2344等模具钢、碳钢、普通合金钢、不锈钢、铍铜、紫铜和极硬合金材料的塑胶模具、铸造模、锻造模、冲压模、压铸模等。普遍应用于手机、数码产品、汽车及摩托车等模具制造和成型行业。used to S136, SKD-11, NAK80, 8407, 718, 738, H13, P20, W302, 2344 titanium, nickel, tin, copper, aluminum, chromium, niobium, gold, silver, steel and their alloys.

### 产品优势 Product advantage

世界先进技术实力：奥华激光是国内首家推出激光模具修补设备的专业研发、生产和销售商，研发人员来自国家重点激光研究所的专家和负责人。Aohua laser has the most advanced technology strength: It is the first specialized researcher, producer and seller who developed laser mould repairing equipments.

关键部件采用国外进口配置优化组合，部分性能世界领先、具有极高的综合性价比、适用性强，产品多次出口日本、欧洲等发达国家。We use imported products on the key parts so the performances are the same as the machine imported and some performances are even superior to imported machine. It's more economical and suitable. The products are exported to some developed countries such as Japan and Europe.



# AHL-W180III AHL-W180IV

高品质  
HIGH QUALITY

高效率  
HIGH EFFICIENCY

低维护  
LOW MAINTENANCE



AHL-W180III



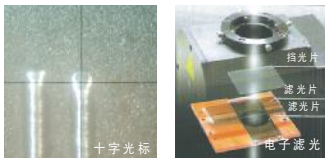
AHL-W180IV



采用改进型内置工控微机进行双闭环精密控制，其稳定性和运行能力远远优于单片机控制。激光控制系统对激光电源波形进行精密控制，系统对不同材质预置了优化波形值。只要选择对应的材质，就能焊出最好的效果。It is under the control of double closed loop by inside improved industrial controlling micro-computer so the stability and the running ability surpass similar products that controlled by monolithic integrated circuit. The laser controlling system can control the power source profile precisely pre-set optimized

**气体保护系统:** 可改为微机控制的同步氩气保护系统，使氩气保护更好，焊接效果更加牢固，美观。可以最大限度地节约氩气。

**Gas protecting system:** synchronous argon protecting system controlled by micro-computer act better, it make the welding connection even firmer and artistic. Being controlled to keep synchronous transmission with laser can save the argon at the highest level.



**观察系统:** 配带十字光标的专用显微镜观察系统。带有高速电子滤光保护装置，保护作业者眼睛不被激光伤害。

**Observing system:** It's equipped with special-purpose microscope observing system with cross cursor. It has high speed electron flitting device to protect the operator's eyes from being hurt.

## 技术参数 Technology parameters

		AHL-W180III	AHL-W180IV
最大激光功率	Max. laser power	180W	180W
激光波长	Laser wave-length	1064nm	1064nm
单脉冲最大能量	Single pulse energy	110J	110J
激光焊接深度	Welding depth	0.1 - 3.5mm	0.1 - 3.5mm
脉冲宽度	Pulse width	0.3 - 20ms	0.3 - 20ms
连击时激光焊接频率	Welding frequency	0.5 - 20Hz	0.5 - 20Hz
光斑尺寸可调范围	Adjustable facula size	0.2-2mm	0.2-2mm
激光焊丝	Laser welding wire	Φ0.2-Φ0.8 mm	Φ0.2-Φ0.8 mm
整机耗电功率	Power consumed	≤11KW	≤11KW
电力需求	Electrical source	220V (380V) ±10%/50Hz	220V (380V) ±10%/50Hz/40A
标配工作台	Standard worktable	三维上下电动 3D Z-Electric	三维上下电动 3D Z-Electric
瞄准定位	Positioning	显微镜 Microscope	显微镜 Microscope
激光器上下行程	Z- itinerary	300mm	300mm
激光器轴向旋转	Axial Rotation	360°	360°
激光器水平方向	Mobile level	Y轴可移/	XY电动 Electric
备注：由光路、冷水箱、控制箱等组成。可选配万向夹具工作台、监视系统。			