



LWS/LWS-pro is a High-power laser welding solution developed by Raymotion, offers advanced features to help users complete processing better, such as:

- **Traceable welding quality.**

Three-band melt pool monitoring system can monitor and record melt pool status from visible light, infrared and laser bands.

- **Complete security.**

Monitor the temperature of the galvo and lens to avoid potential safety risks.

GAS (Galvo Active Safety) function can promptly identify the abnormal status of the galvo and alarm to avoid greater losses.

- **Adaptive laser power.**

Adjust the laser power synchronously during the acceleration and deceleration sections of the galvo to avoid energy accumulation.

- **Visual positioning.**

Use the coaxial vision system to obtain images of the processing area and visually locate the workpiece.



LWS/LWS-pro 是 **Raymotion** 开发的高功率激光焊接解决方案，提供先进的功能来帮助用户更好地完成处理，例如：

- 焊接质量可追溯

三波段熔池监测系统可以从可见光、红外和激光波段监测和记录熔池状态。

- 安全保障齐全

监控振镜和镜头的温度，避免安全隐患。

GAS (Gavlo Active Safety) 功能可以及时识别振镜的异常状态并报警，避免更大的损失。

- 自适应激光功率

在振镜加速和减速阶段同步调节激光功率，避免能量积累。

- 视觉定位

利用同轴视觉系统获取加工区域的图像并对工件进行视觉定位。



High Power Welding Module Specifications

高功率焊接模组 规格参数

规格书 Specifications

通用规格 General specifications

电源 power supply	电压 Voltage[V]	± 15
	电流 Electric current(RMS)[A]	5
	电流 Electric current(MAX)[A]	10
	纹波 / 噪声 @20MHz 宽带 [mV pp]	MAX.20
环境温度 Ambient temperature[°C]		(+15)~(+35)
储存温度 Storage temperature[°C]		(-10)~(+60)
接口信号 Interface signal		XY2-100
典型光学偏转角 Typical Optical Deflection Angle[rad]		±0.35
分辨率 Resolution [μrad]		10.6
重复定位精度 Repeatability(RMS)[μrad]		<2.0
定位噪音 Positioning noise(RMS)[μrad]		<2
重量 Weight[kg]		14.5
F-theta 镜头焦距 F-theta focal length[mm]		420
F-theta 镜头波长 F-theta wavelength[nm]		1030-1080
工作范围 Scan area[mm]		200*200
工作距离 Working distance[mm]		522

注：若需要其他类型镜头请咨询鞍山精准
Other type lens please inquire Ray-Motion

扫描振镜 Scan Head

Neutron30D

振镜规格 Scan Head specification

Refer to the datasheet of Neutron datasheet

光纤准直接口 Fiber Interface

QBH

准直镜型号 Collimator type

CL-F150 /CL-F200

准直镜焦距 Focal Length[mm]

150/200

冷却方式 Water Cooling

Water cooling

注：对于不同激光器需要由鞍山精准确认具体准直镜规格

For other laser type, need to confirm the type of collimator by Ray-Motion

照明形式 Illumination type

Ring

光源尺寸 Light source size[mm]

Φ240 * Φ190 * 20

照明光波长 Illumination wavelength [nm]

465-470

照明功率 Illumination power[W]

33

照明亮度 Illumination brightness

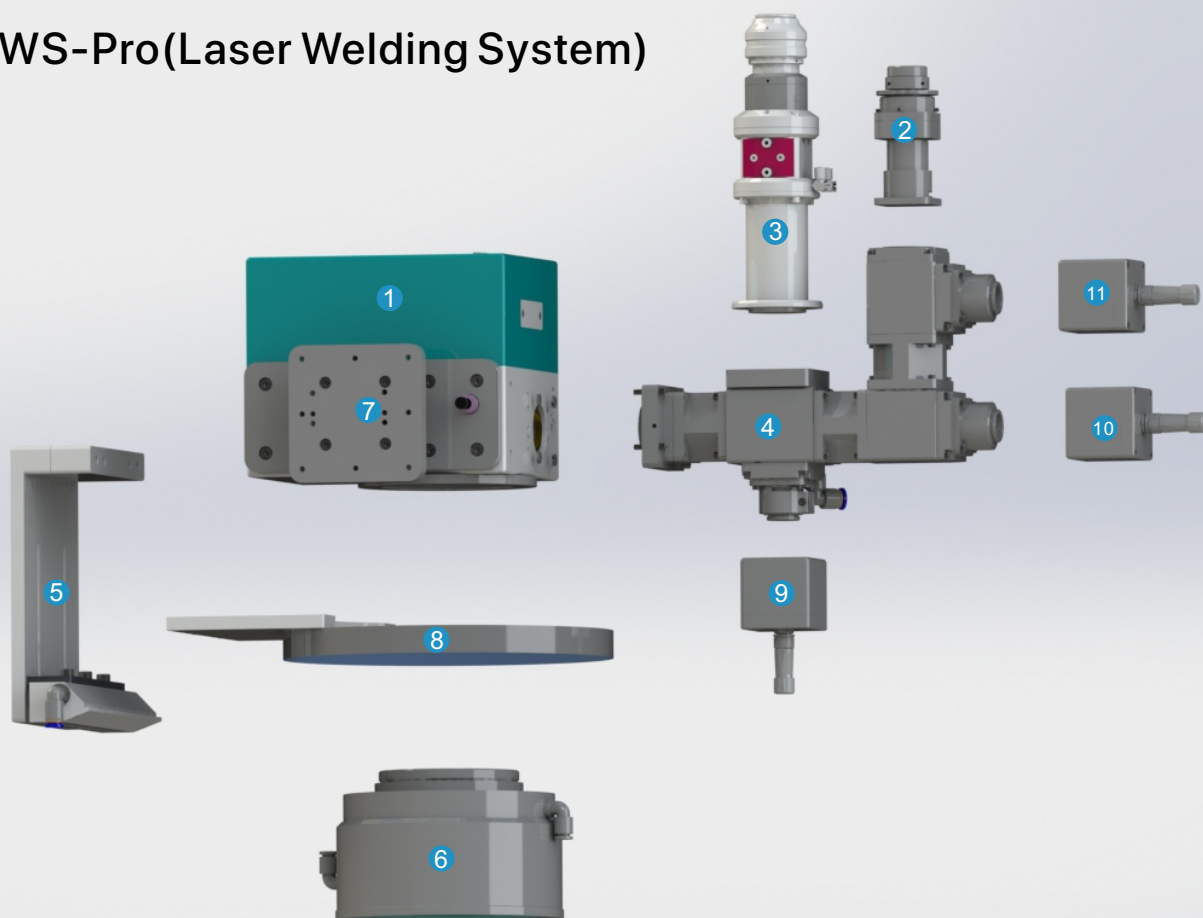
tunable

注：若需要其他类型光源请咨询鞍山精准

Other type illumination please inquire Ray-Motion



LWS-Pro(Laser Welding System)



1 Neutron 30D 凌腾系列	7 Mounting Bracket/ 安装支架
2 Camera Adapter/ 相机适配器	8 Lighting Source/ 光源
3 Collimator QBH D42 F=150/ 准直器 QBH D42 F=150	9 Laser Monitor
4 Beam Splitter Housing/分束器外壳	10 Optical Radiation Monitor (Infrared light)
5 Air Knife/ 风刀	11 Optical Radiation Monitor (visible light)
6 F-theta f=420/ 场镜 f=420	



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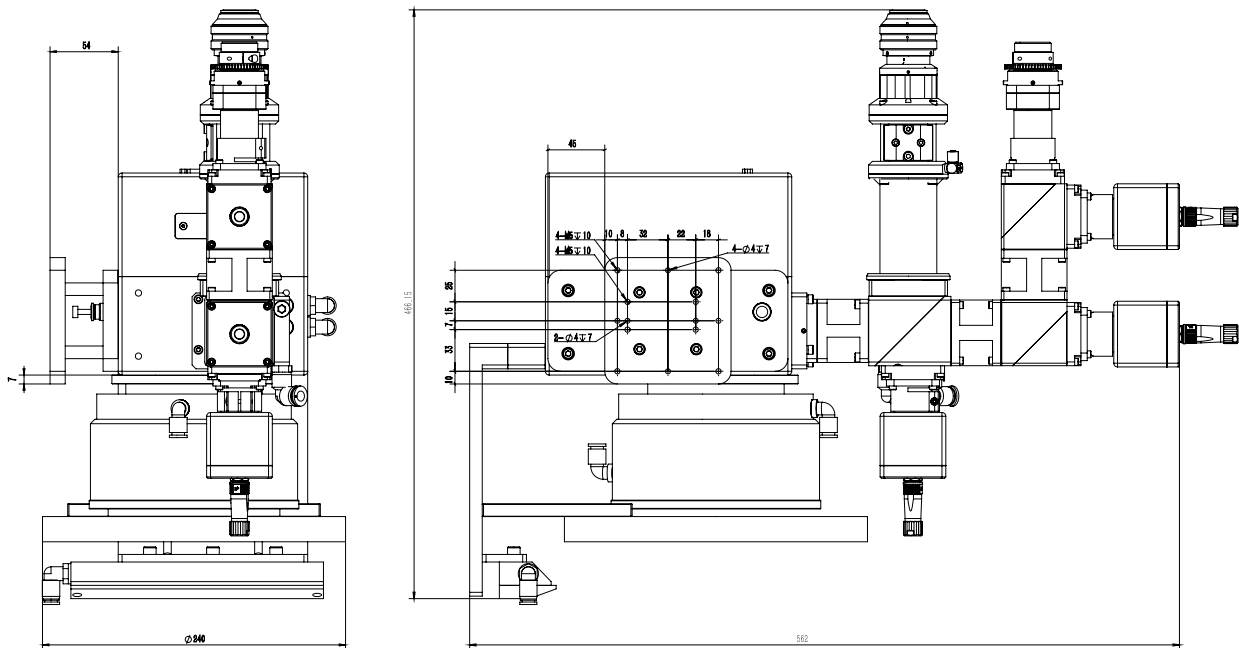
8 Lighting Source/ 光源



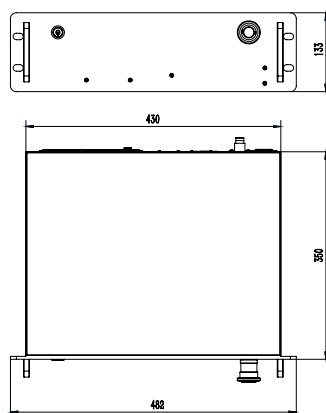
High Power Welding Module Mechanical Drawings

高功率焊接模组 机械图纸

LWS-Pro



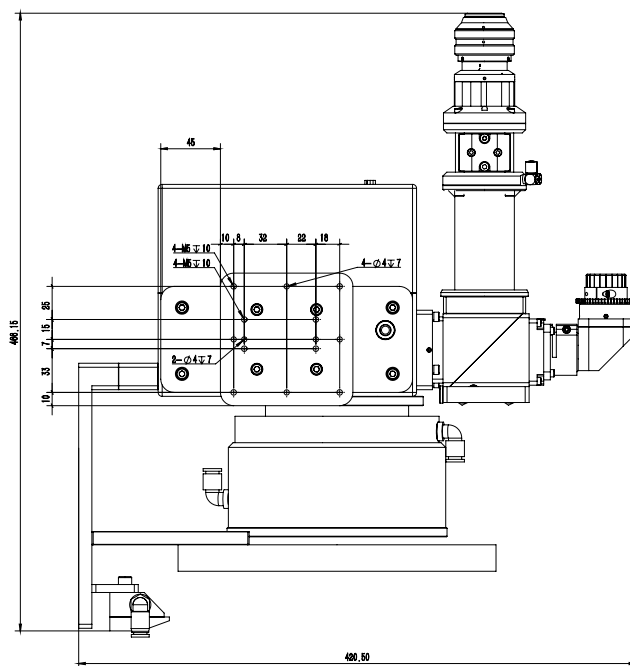
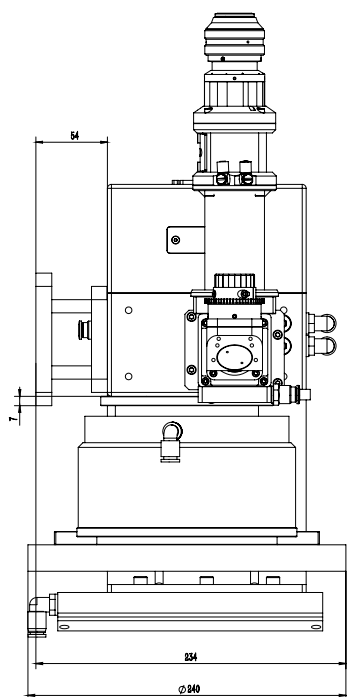
LWS-Pro系统控制器



High Power Welding Module Mechanical Drawings

高功率焊接模组 机械图纸

LWS



注：具体尺寸以实际为准，鞍山精准有权对图纸进行变更。上述资料如有更改，将不做另行通知05/2023

Specific size is in accordant with the final product, Anshan precise have the right to make the change of the drawing. The above information is subject to change without notice05/2023

