

新松激光焊焊接套机系统

SIASUN Laser Welding Robot System

精准智控 · 轻松焊接 · 经济实用 · 您最得力的激光焊接帮手

Precision Smart Control · Effortless Welding · Cost-Effective & Practical · Your Most Reliable Laser Welding Partner



新松激光焊接机器人系统

SIASUN Laser Welding Robotic System



控制器 Controller



示教器 Teach pendant



激光器 Laser



冷却水箱 Coolant Tank



送丝机 Wire Feeder



激光焊接头
Laser Welding Head

以SR系列工业机器人为主体，搭载激光焊机、激光焊接头、送丝设备、水冷系统等关键部件。打造了一套全面而高效的自动化焊接解决方案。

Centered on the SR Series Industrial Robots, this automated welding solution integrates laser welding machines, laser welding heads, wire feeding systems, and water cooling systems to deliver a comprehensive and efficient welding workflow.

工业机器人

Industrial robot

型号Model		SR12A-12/1.46	SR25A-25/1.80
负载能力Max payload		12kg	25kg
重复定位精度Repeatability		±0.03mm	±0.05mm
最大工作半径Max.reach		1465mm	1803mm
运动范围 Motion Range	J1	±180° *	±180°
	J2	+ 90°, -170°	+ 90°, -165°
	J3	+ 150°, -90°	+ 160°, -85°
	J4	±180°	±180°
	J5	+ 145°, -160°	±180°
	J6	±360°	±360°
最大运动速度 Maximum Speed	J1	200°/s	200°/s
	J2	200°/s	220°/s
	J3	220°/s	220°/s
	J4	400°/s	380°/s
	J5	430°/s	420°/s
	J6	720°/s	550°/s
手腕允许力矩 Moment	J4	23N·m	52N·m
	J5	20N·m	52N·m
	J6	9N·m	32N·m
手腕允许惯量 Inertia	J4	0.4kg·m²	2.4kg·m²
	J5	0.38kg·m²	2.4kg·m²
	J6	0.1kg·m²	1.2kg·m²
本体重量Weight		130kg	250kg
防护等级(腕部)Protection(wrist)		IP65	IP65

*侧装时J1轴运动范围为±30°



激光焊接头

Laser Welding Head

型号Model	SUP25A
供电电压 Power Supply Voltage(V)	系统供电System Power Supply
安放环境 Installation Environment	无振动和冲击No vibration or shock
工作环境温度 Operating Temperature(°C)	-10 ~ 50°C
工作环境湿度 Operating Humidity(%)	< 70
冷却方式Cooling Method	水冷Water-cooled
适用波长 Applicable Wavelength	1080nm (±10nm)
适用功率Max Power(W)	≤3000W
准直镜Collimating Lens	D30*4.5 F75
聚焦镜Focusing Lens	D30*4 F250
保护镜Protective Lens	D30*3
最大支持气压Max Air Pressure	15Bar
焦点垂直调节范围 Focus Vertical Adjustment Range	±15mm
重量Weight	2.2kg



激光焊接主机

Laser Welding Host

高间隙容忍度

High Gap Tolerance

焊缝成型美观

Beautiful Weld Formation

高功率密度

High Power Density

高效，低飞溅

High Efficiency, Low Spatter

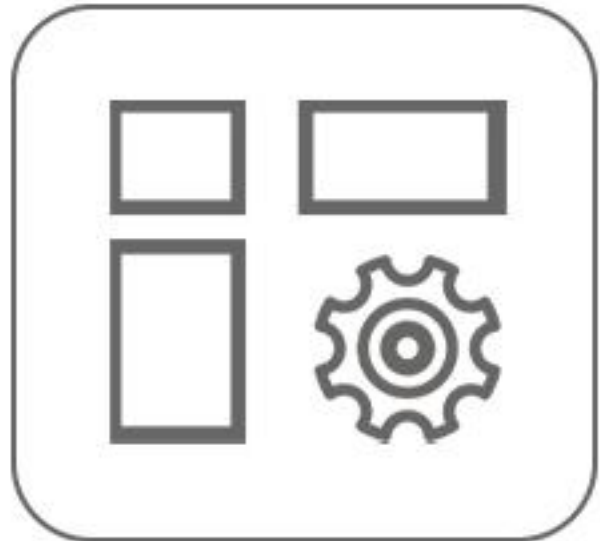
项目Product	X系列机器人激光焊接机X-Series Robot Laser Welding Machine
产品规格Model	X-1500R
激光器功率Laser Power	1500+50w
控制系统Control System	麦格米特机器人激光控制系统Megmeet Robot Laser Control System
送丝方式Wire Feeding Method	单送丝Single Wire Feeding
定位方式Positioning Method	红光点线定位，可选装CCD定位与观测系统 Red Light Point-Line Positioning; Optional CCD Positioning & Observation System
额定输入电压Rated Input Voltage	220V 50/60HZ
额定输入电功率Rated Input Power	5.4KW
输出激光波长Output Laser Wavelength	1080±5nm
铠缆长度Cable Length	标配10米，可加长至15米Standard 10m (Extendable to 15m)
工作方式Operation Modes	连续、调制Continuous, Modulated
冷却方式Cooling Method	双温双控工业恒温水箱，大机柜、大功率水泵、热泵 Dual-Temperature Dual-Control Industrial Constant-Temperature Water Tank with High-Power Pump & Heat Pump
工作环境温度Operating Temperature	-10°C~40°C
工作环境湿度(Tc=40°C)Operating Humidity	<70%无凝露 (No condensation)
焊接厚度建议Recommended Weld Thickness	0.5-4mm
工件缝隙要求Workpiece Gap Requirement	≤1mm
主机外形尺寸(LWH)Machine Dimensions	889*543*791mm
重量Product	≤88.5kg

应用自动化解决方案

Application Automation Solution

新松机器人激光焊套机系统，采用了自主研发的SR系列工业机器人，集成了高精度激光器、专用激光焊接头、自动送丝设备以及水冷系统等关键组件，打造了一套全面而高效的自动化焊接解决方案。该系统不仅实现了激光焊接过程的高精和高速的一致性，还通过一系列创新设计，大大简化了操作流程，提升了使用体验。

Centered on the SR Series Industrial Robots, Siasun's Laser Welding Integrated Solution integrates high-precision lasers, dedicated laser welding heads, automatic wire feeding systems, and water cooling systems to deliver a comprehensive and efficient automated welding solution. This system not only achieves high-precision and high-speed consistency in laser welding processes but also simplifies operational workflows through innovative design optimizations, significantly enhancing user experience.



集成度高
便捷易用
High Integration,
User-Friendly Operation.



精准送丝
不粘丝
Precision Wire Feeding,
Anti-Stick Wire Delivery



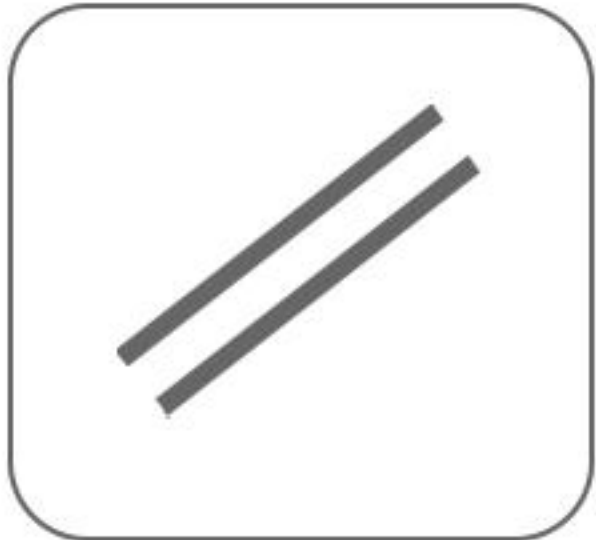
智慧焊接
专业应用
Intelligent Welding Technology,
Professional Applications.



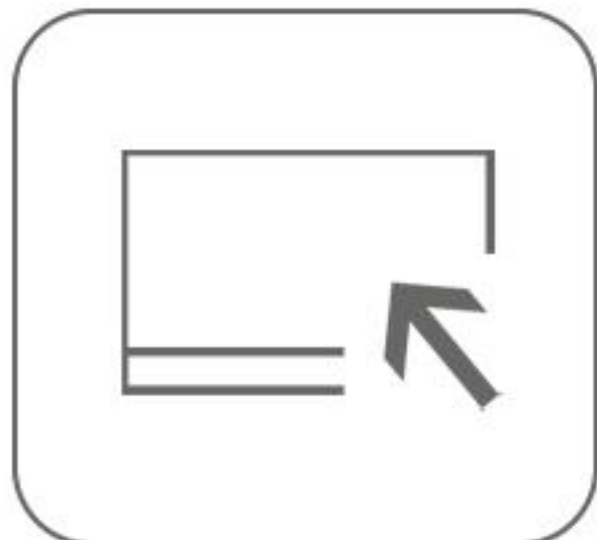
数字通讯
高效便捷
Digital Communication,
High Efficiency & Convenience



模块设计
维护方便
Modular Design,
Easy Maintenance



输出稳定
工艺美观
Stable Output Performance,
Beautiful Weld Appearance.



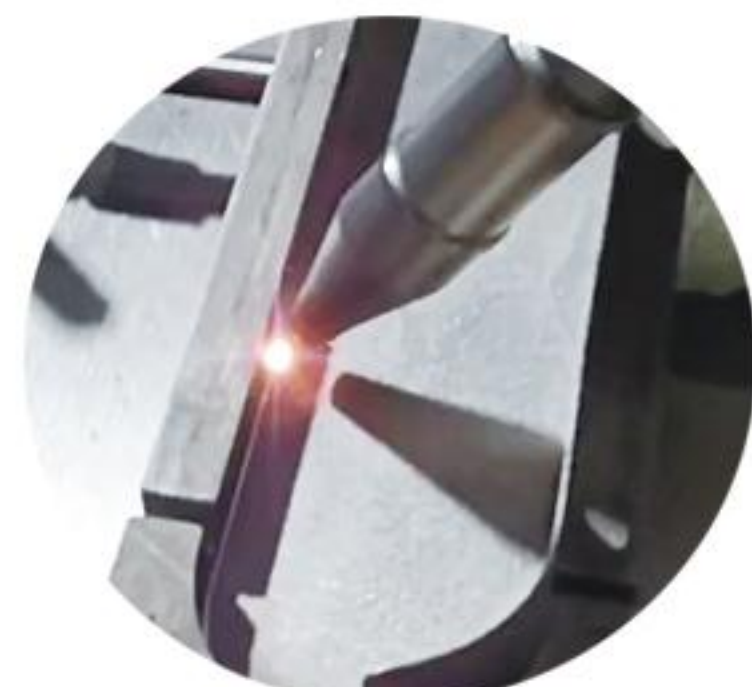
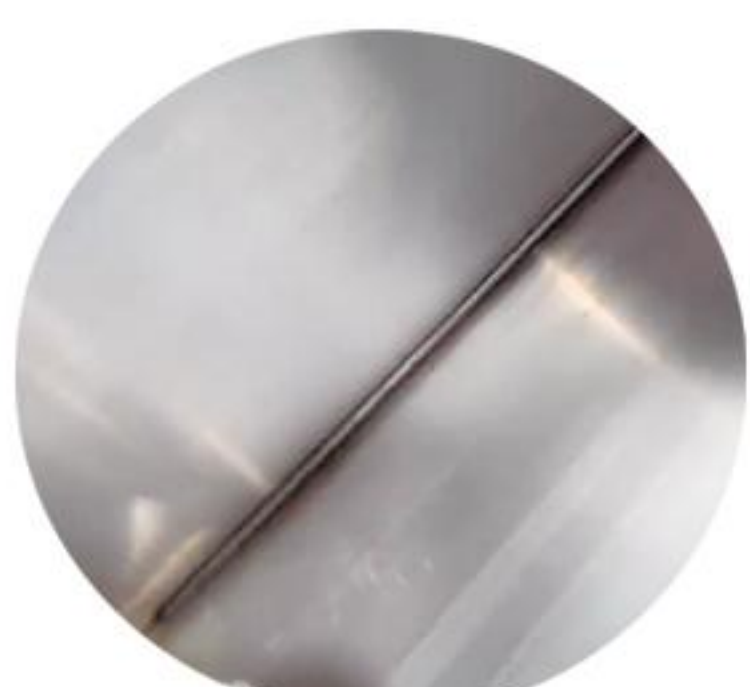
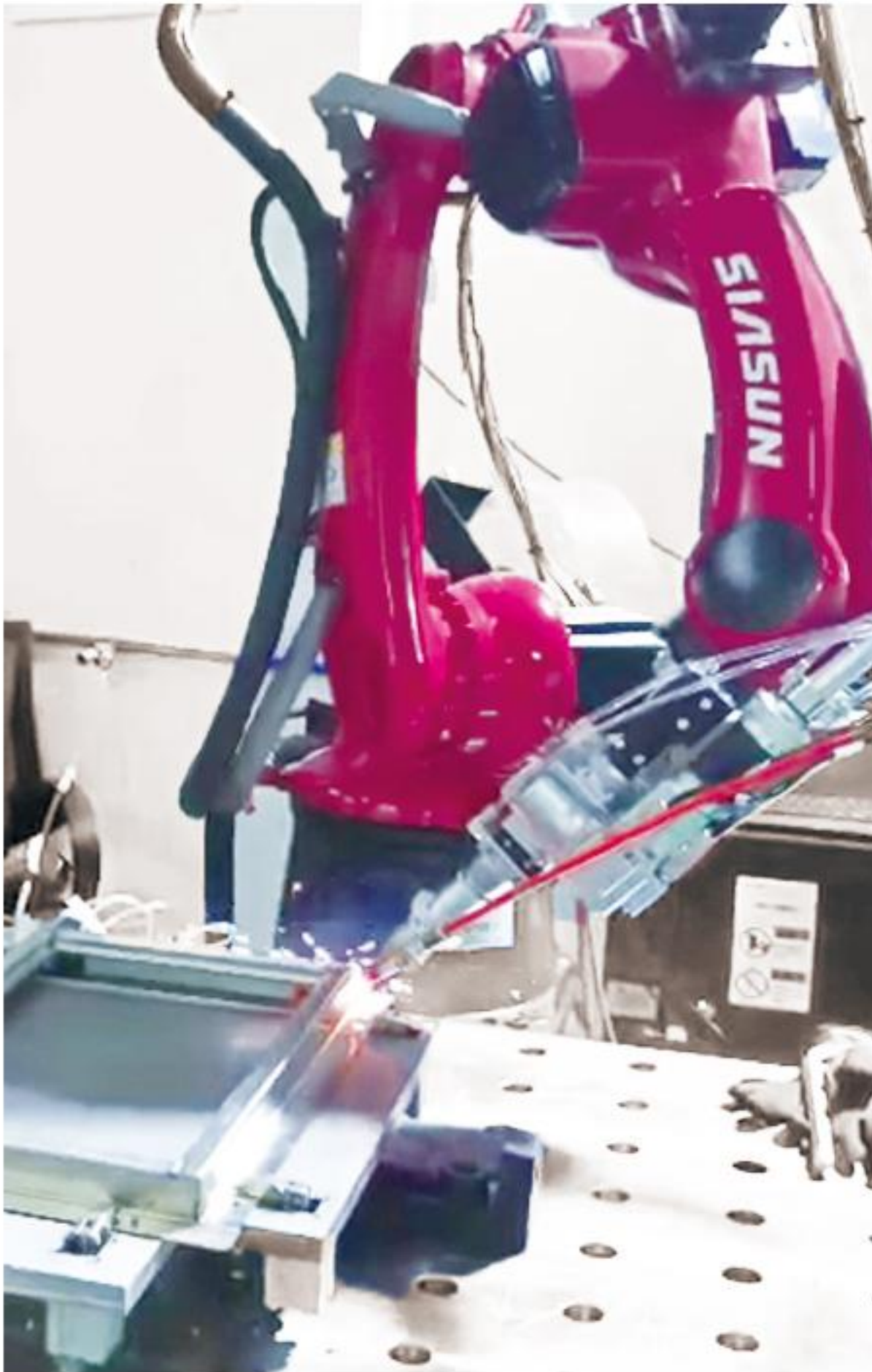
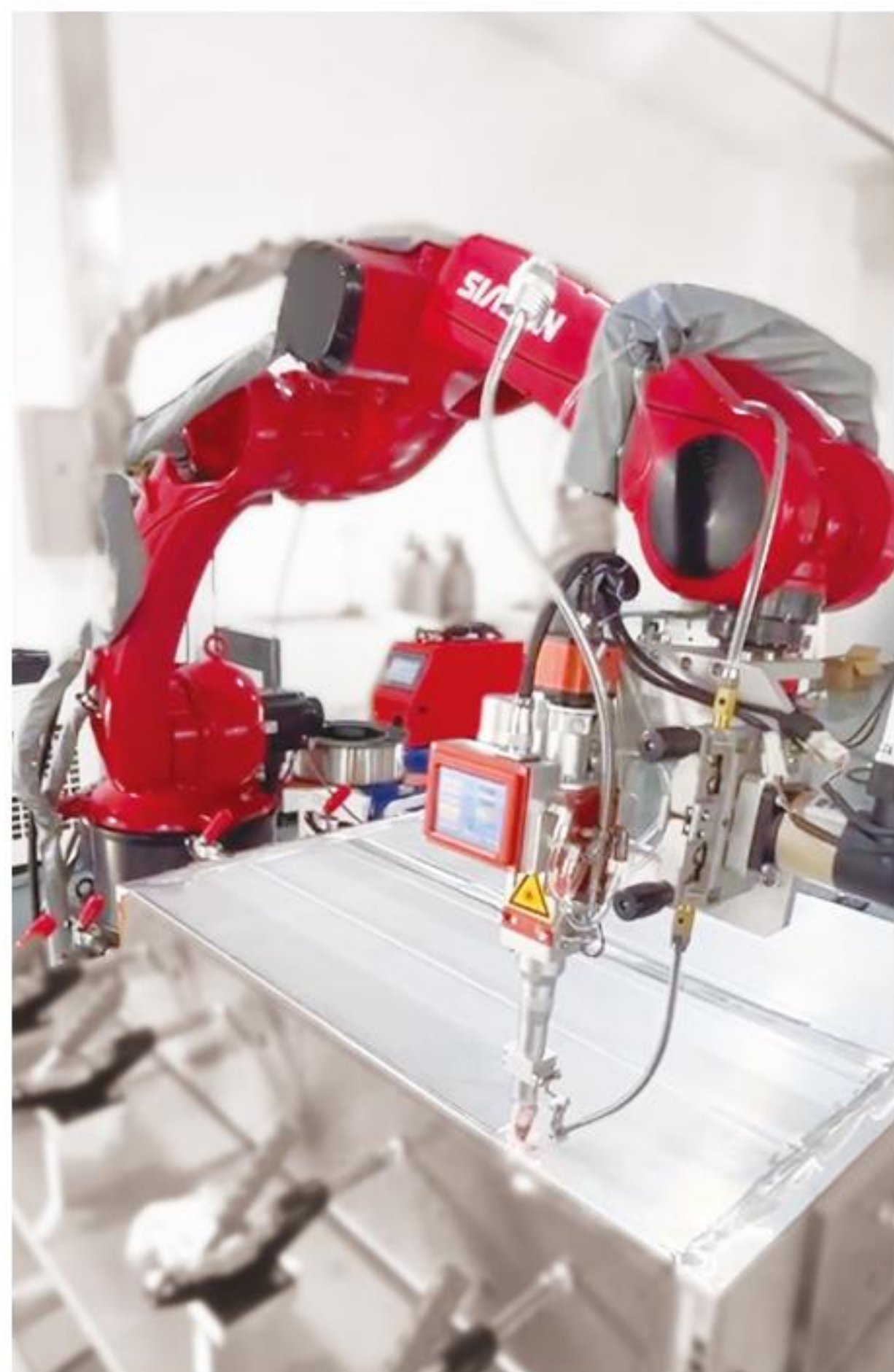
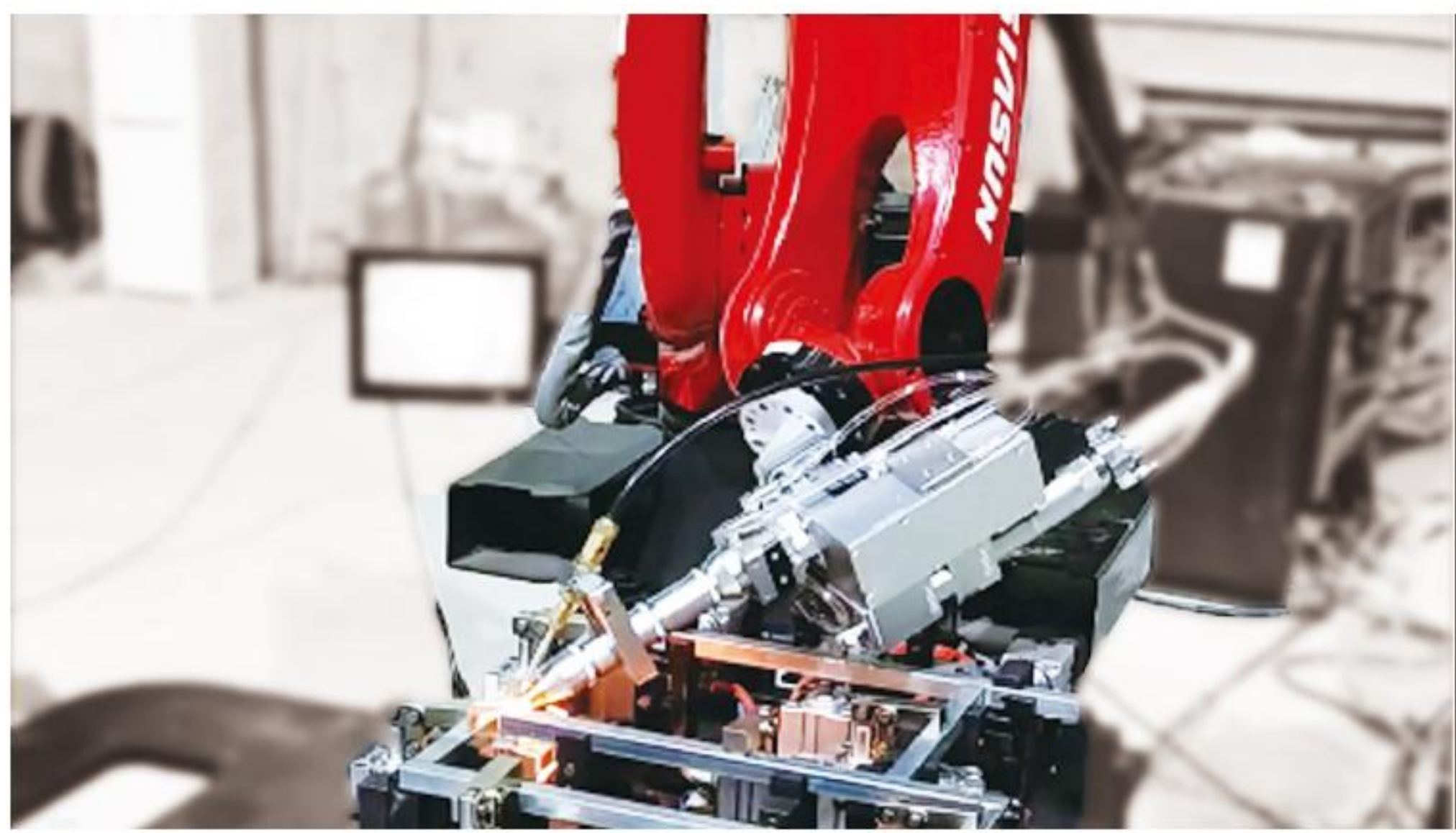
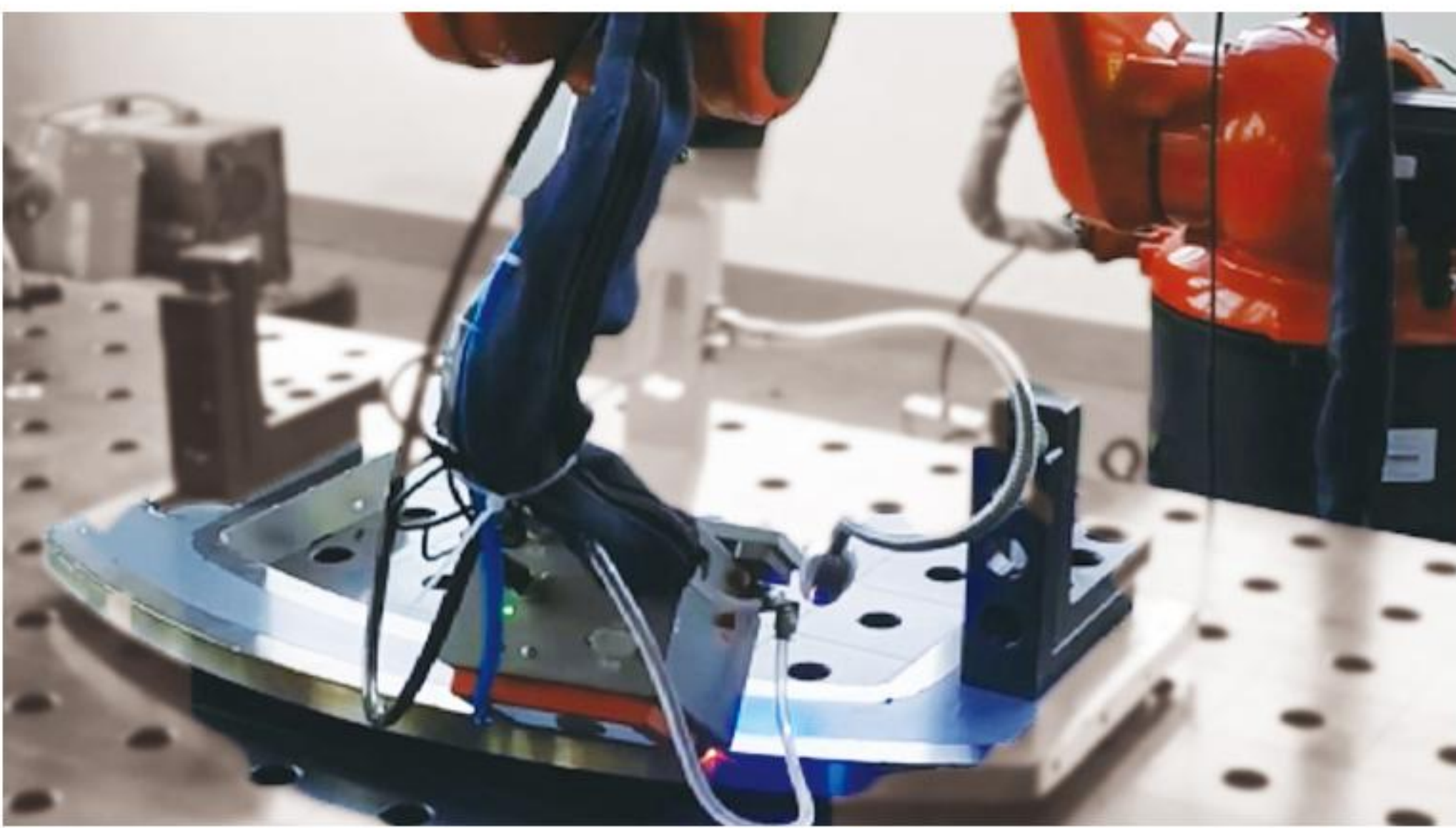
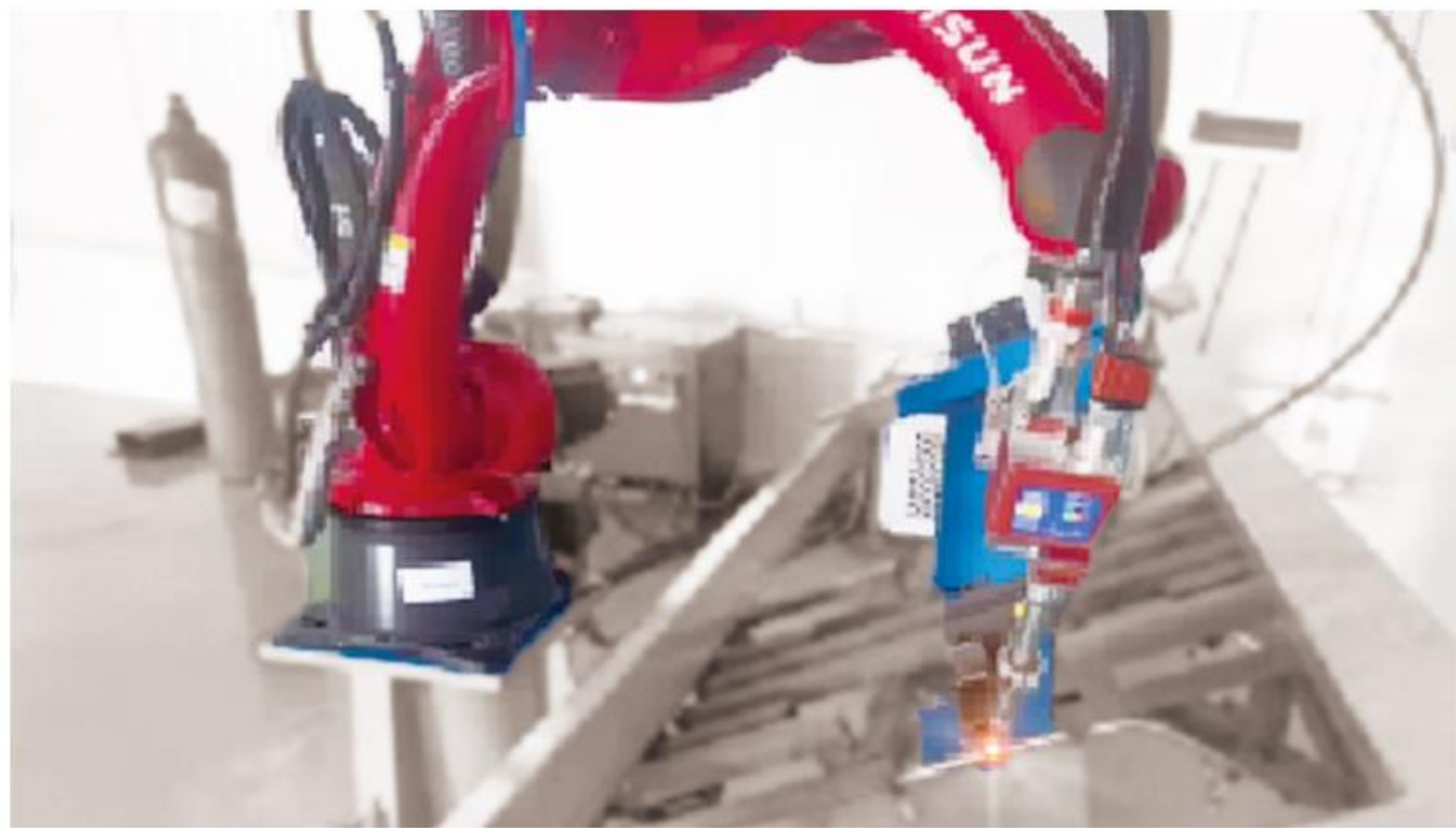
安全可靠
动态检测
Safety & Reliability,
Dynamic Monitoring System



专业服务
售后保障
Professional Support,
After-Sales Assurance

激光焊接自动化 新松工业机器人标准机

Laser Welding Automation Siasun Industrial Robots Standard Model



一站式适配，减少适配烦恼
All-in-One Integration, Minimize Adaptation Hassles



深度开发，解锁激光焊接工艺库
Deep Development, Unlock Laser Welding Process Library



数字通讯，实现激光与机器人微秒级通讯
Digital Communication, Enable Microsecond-Level Synchronization Between Laser and Robot



一站式配

All-in-One Integration



- 采用自主研发SR系列机器人，机器人轨迹精度高、运行稳定、姿态变换平滑、运动性能表现突出，确保每个焊点的最佳状态。

Equipped with independently developed SR Series robots, featuring high trajectory accuracy, stable operation, smooth pose transitions, and exceptional motion performance, ensuring optimal condition for each weld point.

- 一体化产品设计，提升了通讯速度和电弧响应速度，增强了系统的集成能力和安装运行效率。

Integrated Product Design enhances communication speed and arc response speed, while boosting the system's integration capability and installation-operational efficiency.

- 与国内知名激光器厂家深度合作，为用户提供成熟完备的整体解决方案。

Strategic partnerships with domestic leading laser manufacturers to deliver mature, comprehensive, and all-in-one solutions for users.

深度开发

Deep Development



- 新松激光焊接软件包具备专用的功能配置页面和应用指令集，可通过机器人示教器配置激光焊的类型、通讯、工艺参数等。

SIASUN's Laser Welding Software Package features dedicated functional configuration pages and application-specific instruction sets, allowing users to configure laser welding types, communication protocols, and process parameters via the robot teach pendant.

- 通过数字量模拟量信号控制，实现高效稳定的数据传输。

Through digital and analog signal control, achieve efficient and stable data transmission.

- 支持激光功率缓升缓降，提高焊接质量。

Supports smooth laser power ramping to enhance welding integrity.

数字通讯

Digital Communication

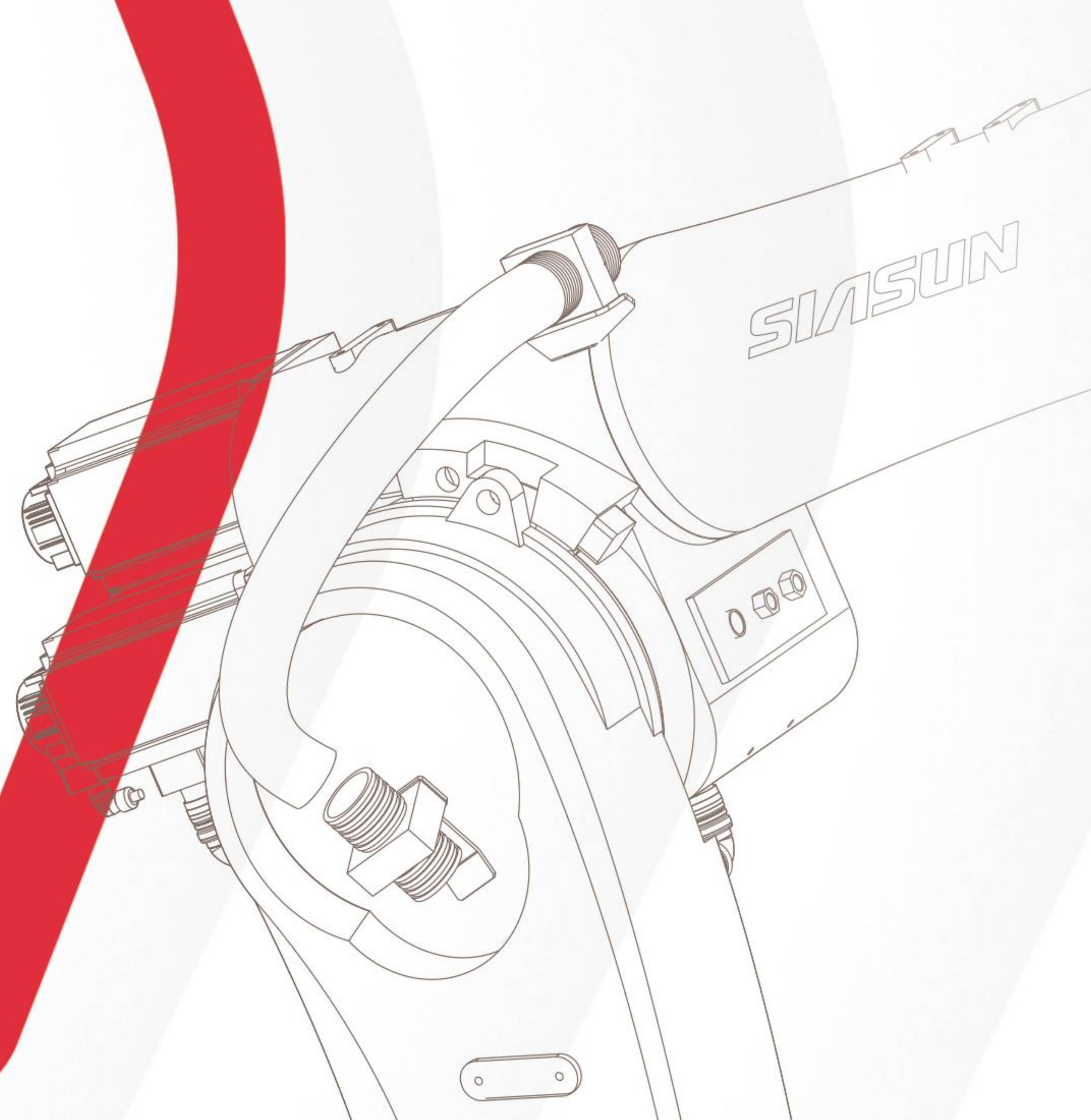


- 数字通讯，稳定抗干扰。实现了高效、稳定的数据传输，用户可通过机器人示教器直接设置激光控制参数，简化操作流程使用更加便捷、高效。

Digital Communication: Stable with Strong Anti-Interference, Enabling Efficient and Stable Data Transmission · Users Can Directly Configure Laser Control Parameters via Robot Teach Pendant, Streamlining Workflows for Enhanced Convenience and Efficiency.



SIASUN



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