

Branson™ GLX-1 Laser Welder

Advanced Simultaneous Through-Transmission Infrared®(STTIr®)
Laser Welding Technology

Features & Benefits

Branson GLX-1 Laser Welder, supports your need to manufacture smaller and more delicate plastic parts as well as the growing industry demand for automation and IIoT capabilities (industry 4.0).

This modular, flexible joining solution uses advanced Simultaneous Through-Transmission Infrared®(STTIr®) laser welding technology providing greater welding precision and control, ensuring weld quality and improved operational efficiency with superior weld strength and quality.

Differentiators

- Patented STTIr® welding process provides you with greater material compatibility and enhanced design flexibility to incorporate 3-D contours and sensitive components
- Industry 4.0/IIoT capable - provides you access to actionable machine data
- Automation integration capable - provides seamless integration to support your automation needs
- Intuitive and easy to use HMI screen
- Automatic loading of welding recipes during tool change
- Optional Servo actuation system, improving position accuracy leading to faster high-performance welding
- Enhanced security - with up to 99 levels of customized password protection



Technical Specifications

Product Platform Global		
Laser System		
Number of Laser Banks	Up to 2	
Wavelength	990 ± 20 nm.	
Laser Power	Max. 250 Watts per laser bank	
Cooling	Water/DowFrost mix	
Size	92mm W x 491mm D x 374mm	
Servo Actuator	Max Stroke	Maximum Clamp Force*
Actuator Servo	115mm	2500 N
Force Range	Ultra Low - High	
Force control	Force sensor	

For more information:
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Technical Specifications

Pneumatic Actuators	Max Stroke	Maximum Clamp Force*
ACTUATOR DIA32 2000XC MICRO LASER	75 mm (2.95 in)	400N
ACTUATOR DIA 1.5" 2000XC LASER	152 mm (5.98 in)	600N
ACTUATOR DIA 2.5" 2000XC LASER	152 mm (5.98 in)	1800N
Force control	Force sensor	
Pressure regulator	Electronically regulated welding pressure	
Controls		
HMI	12" Touchscreen on Pendant Arm	
Data & Automation Interfaces	Optional (OPC-UA, Ethernet/IP)	
Input Voltage	100V AC.. 240 V AC, 50 / 60 Hz	
Air supply	G1/4, 6bar	
Tool interface		
Tool recipes recognition	Automatic	
Controls for tool functions (valves installed on tool side)	3 pneumatic functions 1 vacuum generator	
Tool sensor inputs	14	
Machine Weights		
Actuator on Ergo Base wo/ Laser Banks	123 Kg (270 lbs.)	
Laser Bank	16 Kg (35.2 lbs.) each	
Controls Cabinet	35 kg (77.0 lbs.)	
Mechanical		
Max Dimension Machine Envelope	610 mm (24.0 in) W	
Actuator	804 mm (31.6 in) D	
Assembly	1785 mm (70.3 in) H	
Controls Cabinet Envelope	350 mm (13.8 in) W	
	600 mm (23.6 in) D	
	600 mm (23.6 in) H	
External Chiller		
External Chiller	1100/1300W 200-230V 50/60Hz or 110-120V 50/60Hz	
Chiller wo/Coolant	43 Kg (94.6 lbs)	
Chiller Envelope including Filter	380 mm (15.0 in) W	
	705 mm (27.8 in) D	
	660 mm (26.0 in) H	
Machine / Chiller communication	Yes	
Operating Environmental Requirements		
Operating Temperature Range	15° C (59° F) -35° C (95° F)	
Relative Humidity	Maximum Dewpoint 20°C (68° F)	

* The dimensions and values can vary depending on switches, pneumatic input unit, rubber elements, tolerances and other options.

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