

Branson™ GLX-3 Laser Welder

High-speed, high-volume laser welding

Features & Benefits

The Branson GLX Laser Series incorporating Emerson's patented Simultaneous Through-Transmission Infrared (STTIr®) laser welding technology delivers superior weld strength and quality with exceptional speed and throughput.

Utilizing Branson High power Laser Bank, providing a particulate-free process, producing welds that are barely visible resulting in better aesthetics, as well as superior performance. In highly visible applications, such as automotive taillights, the laser weld does not need to be hidden behind opaque masking, which maximizes the transparent area. It also offers unmatched material compatibility and easily integrates into automated and pass-through operations, facilitating tool change to optimize performance.

Human Centered Design helps to reduce training and start-up times and enables changes to be made quickly, while access to machine performance information helps provide actionable data that can support greater operational efficiency supporting the growing industry demand for enhanced IIoT capability.



Technical Specifications

GLX-3 Version 003	
Mechanical	
Overall Dimensions*	2971 mm H x 2717 mm W x 1570 mm D
Dimensions with open doors*	2971 mm H x 3423 mm W x 1999 mm D
Lift-table dimensions	1333 mm W x 600 mm D
Lift-table stroke	600 mm
Clearance above lift-table	1050 mm
Weight (approx. value depends on options)	4500 kg
Drive System	
Clamp force	1-25 kN, Servo-actuated
Lift table maximum speed	500 mm/s
Laser System	
Available Laser Power	1000W-4000W
Cooling of laser system	Chiller integrated into machine footprint – water with anti-corrosion and anti-algae solution
Dew point management	Included as standard
Machine Controls	
Machine Logic	Internal Branson Logic Control System
User Interface	12" touch screen
Lift-table Force Control	Closed Loop
Table Position Control	Full Stroke
Light Curtain	Included as standard
Cycle time	Simultaneous motion of key features

For more information:
www.Emerson.com/Branson

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Tool interface / Tool change	
Max. upper tool weight	300 kg
Max. lower tool weight**	200 kg
Tool functions	6 Pneumatic Functions (in total for upper and lower tool)
Alignment/connection of upper and lower tool	Fully Automatic
Machine Enclosure	
Noise Emission	Below 70dB(A) according to EN ISO 11202
Front Doors	Double front doors with laser-safe glass
Maintenance Door	Double doors from rear side, single door from front side
Standard color (outside/inside of machine)	RAL9011 and RAL7011 (Outside), RAL7011 (Inside)
Connection	
Required Air Purity (Particulate/Water/Oil)	Class 4:4:2 according to ISO 8573-1:2001
Pneumatical/input air pressure	1/2", 6 -10 bar
Electrical	Based on customer requirement: <ul style="list-style-type: none"> • 3 x 400V, 50Hz, PE, N (5 x 16 mm²) • 3 x 380V, 50 Hz, PE, N (5 x 16 mm²) • 3 x 480V, 60Hz, PE, without N (4 x 16 mm²) • 3 x 380V, 60 Hz, PE, without N (4 x 16 mm²) • 3 x 200V, 50/60 Hz, PE, without N (4 x 35 mm²)
Data Interfaces	USB, DIG 'Data Interface Gateway' as an option
Ambient Conditions	
Temperature ***	Min. +15°C, Max. +35°
Humidity (no condensation)	Max. 80%

*Dimensions can vary due to switches, pneumatic input unit, rubber elements, tolerances, and other options.

**Higher weights possible at slightly lower clamp force.

***For higher ambient temperatures, an air conditioning option for the electrical cabinet is recommended.

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