Branson™ GLX-1.5 Laser Welder

High-speed, high-volume laser welding

Features & Benefits

The Branson GLX-1.5 incorporates Emerson's patented Simultaneous Through-Transmission Infrared (STTIr®) laser welding technology delivering superior weld strength and quality with exceptional speed and throughput. Utilizing Branson High Power Laser Bank, providing particulate-free welds for intricate 3D parts, delicate components and embedded electronics and sensors. It also offers unmatched material compatibility and easily integrates into automated and 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.

Differentiators

- Superior welding performance, consistency and ease of use
- Fast Tool Changeover time
- High Power Laser Bank (250W per bank)
- Weld depths of 1.0 mm or greater easily achievable
- Assembly yield rates of greater than 99.5%
- Machine function sequencing using easily recognizable icons
- Tool map simplifies set-up, adjustments and diagnostics
- Enhanced security - up to 99 levels of customized passwords protection
- Enhanced Connectivity options available

Technical Specifications

GLX-1.5 Version 003	
Mechanical	
Overall Dimensions*	2516 mm H x 1632 mm W x 1780 mm D (plus chiller)
Lift-table dimensions	800 mm W x 500 mm D
Lift-table stroke	650 mm
Weight (approx. value depends on options)	2600 kg
Drive System	
Clamp force	1-10 kN, Servo-actuated
Lift table maximum speed	500 mm/s

For more information:
www.Emerson.com/Branson

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Laser System	
Available Laser Power	250W – up to 2000W
Cooling of laser system	Chiller integrated into machine footprint – water with anti-corrosion and anti-algae solution
Dew point management	Available as option
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
Tool interface/Tool change	
Max. upper tool weight	150 kg
Max. lower tool weight	120 kg
Tool functions	Installed on tool side
Alignment/connection of upper and lower tool	Semi Automatic
Machine Enclosure	
Noise Emission	70dB(A) according to EN ISO 11202
Front Doors	Double front doors with laser-safe glass
Maintenance Door	Single Door From Front Side
Standard color (outside/inside of machine)	RAL9011, 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 bar
Electrical	Based On Customer Requirement: • 3 x 400V, 50Hz, PE, N (5 x 16 mm^2) • 3 x 480V, 60Hz, PE, without N (4 x 16 mm^2) • 3 x 200V, 50/60 Hz, PE, without N (4 x 35 mm^2) • 3 x 380V, 50 Hz, PE, N (5 x 16 mm^2) • 3 x 380V, 60 Hz, PE, without N (4 x 16 mm^2)
Data Interfaces	USB, DIG 'Data Interface Gateway' as an option
Ambient Conditions	
Temperature	• Without environment dew point management: ambient dew point must be below 20°C. • With environment dew point management: Min +15°C to max +35°C (recommended to order air conditioning unit for electro cabinet)
Humidity (no condensation)	Max. 80%

Dimensions can be a little bit different due to switches, pneumatic input unit, rubber elements and tolerances.

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