BRANSON

GLX Laser Welder

High-speed, high-volume laser welding comes to medium format parts.

With a heritage of more than 70 years of proven innovation, Branson holds numerous patents for laser welding, including our patented Simultaneous Through-Transmission Infrared® (STTIr®) laser welding technology. In recent years, it has become the industry standard for high-quality, high-speed, laser welding of plastic parts.

Now, in response to the growing demand for applications calling for medium format parts with increasing geometric complexity, Branson has incorporated the revolutionary capabilities of STTIr technology into a new, medium-format laser welder—the GLX.

GLX-2	
Product Platform	Global
Mechanical	
Overall Dimensions*	2806 mm H x 2460 mm W x 1514 mm D (plus chiller)
Dimensions with open doors*	3077 mm H x 3060 mm W x 2156 mm D (plus chiller)
Lift-table dimensions	1043 mm W x 600 mm D
Lift-table stroke	600 mm
Clearance above lift-table	1050 mm
Weight (approx. value depends on options)	4900 kg
Drive System	
Clamp force	1-15 kN, Servo-actuated
Lift table maximum speed	500 mm/s
Laser System	
Available Laser Power	500W, 625W, 750W, 875W, 1000W
Cooling of laser system	Chiller - water with anti corrosion and anti algae solution
Dew point management	Water/air heat exchanger on the roof dehumidification air unit
Machine Controls	
Machine Logic /Internal Communications	Internal Branson Logic Control System CANOpen bus architecture
User Interface	Industrial PC /12" capacitive color screen display/1024 x 768 screen resolution
Safety Control	Safety PLC
Lift-table Force Control	Closed Loop
Table Position Control	Full Stroke
Light Curtain	Based On Customer Preference, Keyence / Sick / Sunx
Cycle time	Simultaneous motion of key features

(continued on back)

Note: *Specifications are estimates. The GLX-2 product is under development, and some values may change when optimizing the design.*

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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)
Tool/ machine communication protocol	CANopen
Alignment/connection of upper and lower tool	Fully Automatic
Pneumatics	
Type	Based on Customer Preference Festo / Numatics / SMC
Machine Enclosure	
Noise Emission EN ISO 11202	72 dB(A)
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, RAL7011 (Outside) RAL7011 (Inside)
Connection	
Pneumatical/input air pressure	1/2" 6 -10 bar
Electrical	Based on customer requirement: • 3 x 400V, 50Hz, PE, N (5 x 16 mm²) • 3 x 480V, 60Hz, PE, without N (4 x 16 mm²) • 3 x 200V, 50/60 Hz, PE, without N (4 x 35 mm²) • 3 x 380V, 50 Hz, PE, N (5 x 16 mm²) • 3 x 380V, 60 Hz, PE, without N (4 x 16 mm²)
Data Interfaces	USB - quantity 4
Ambient Conditions	
Temperature***	Min. +15°C, Max. +35°
Humidity (no condensation)	Max. 80%

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

**Higher weights possible at slightly lower clamp force.*

***If ambient temperature is higher there is recommendation to order air conditioning unit for electro cabinet*

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