

BRANSON

GVX-3H/3HR Vibration Welders

A New Level of Precision, Speed and Consistency

The New GVX Series Welders — for the Ultimate in Precision and Repeatability

Branson brings over 60 years of experience and innovation to the plastics joining industry. Our industry experience and world-class applications lab offer design and development assistance second to none. Plus our multiple welding technologies allow us to solve application challenges with a process neutral approach. Branson continues to innovate and provide solutions with its next generation of vibration welders that deliver unprecedented welding performance.



A new standard of vibration welding quality, throughput, efficiency

The new GVX Series welders set a whole new standard of performance for vibration welders, including:

- Improved weld quality & consistency through continual feedback from closed loop sensors that ensure accuracy and repeatability
- Lightning-fast, 2-second cycle time to support high-speed, automated applications
- Convenient rear-door access enables easy part loading and unloading and easily accessible tool changes
- Uniquely smaller footprint yet larger lift table than traditional vibration welders
- Industrial PC-controlled servo drive with fewer parts and no hydraulic oil offers state-of-the-art speed and accuracy, more energy-efficient operation, plus reduced maintenance and downtime
- Local, rapid-response technical expertise and repair service supported by Branson's worldwide network of facilities

Improved Operator Experience

The GVX features an exceptionally user-friendly human machine interface developed using multiple user personas, an improved sequence editor, intuitive navigation, and enhanced screen display.

Enhanced, integrated safety system with programmable safety controller with lift table height designed for greater user efficiency and comfort also offers:

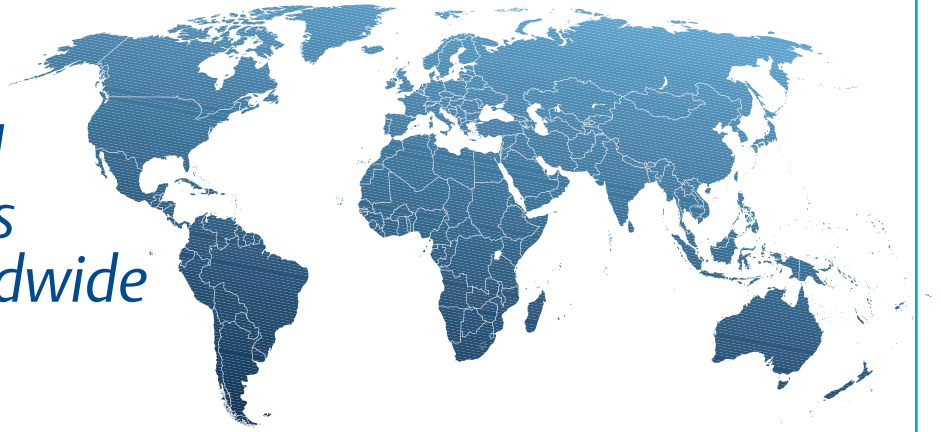
- Front door and lift table movement
- Emergency stop button
- Safety strip
- Safety limit switches on front and rear door
- Integrated light curtains
- Pneumatic tool function
- Lower noise levels – 77dB(A)



Programming is fast and simple with visualization of machine processes and globally recognized icons.

Force and depth profiles show performance with ease.

Branson's Global Footprint Ensures Consistent, Worldwide Performance



Thanks to Branson's global network of facilities, customers can set up an application on a GVX machine in one country and have confidence a comparable GVX machine with the same settings in a different part of the world will yield near identical results.

Multinational customers are assured of accelerated speed to market through:

- Faster, more economical delivery
- Tool interchangeability in 90% of applications
- Local supply, customer service, and maintenance
- Globally uniform tooling interface

Such capabilities open up a new world of opportunities for multinationals to ensure the quality, precision, and consistency of their vibration welding operations worldwide.

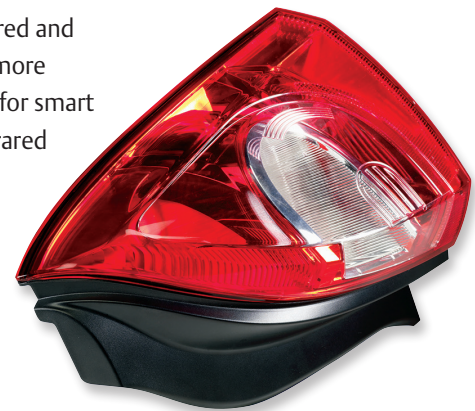
Clean Vibration Welding with GVX-3HR



The GVX-3HR is available with Branson's exclusive, infrared pre-heating feature for applications requiring clean welds virtually free of particulates, angel hair, or other visible contaminants.

The combination of infrared and vibration welding offers more options and applications for smart molding joint design. Infrared

emitters melt the joining surfaces before the welding process starts, resulting in not only clean, particle free joints, but also reduced residual stresses, material-specific friction, and welding time.



The Branson Advantage

GVX Series Vibration Welders Specifications

MECHANICAL	GVX-3H	GVX-3HR	
Overall Dimensions (H x W x D)*	2330 x 2720 x 1200	2330 x 2720 x 2260	mm
Sound Enclosure Dimen. (H x W x D)*	2330 x 3320 x 1890	2330 x 3320 x 3050	mm
Upper Fixture (Oscillating Head, W x D)	920 x 540		mm
Lower Fixture (W x D x Level above Floor)	1360 x 600 x 860		mm
Hole in the Table (W x D)	800 x 300		mm
Clearance between Column Supports	1450		mm
Clearance between the Table and Head	850		mm
Min. Tooling Height	260		mm
Table Stroke	600		mm
Weight (Approx Value Depend of Options)	4500	5700	kg
OSCILLATING HEAD			
Kinematics	Linear vibration		
Frequency (Nominal, Depending on the Tooling Weight)	Approx. 240		Hz
Amplitude (Peak to Peak)	0.7 – 1.8		mm
Tool Weight Upper Tool / Lower Tool / IR Plate (CVT)**	35–65 / 200	35–65 / 200 / 100	kg
Performance (Weld Area, Depending on the Material)	500		cm ²
DRIVE SYSTEM			
Type	Branson Frequency Inverter		
Power Consumption	30		kW
MACHINE CONTROLS			
Machine Logic / Internal Communications	Branson Logic Control System Can open bus architecture		
User Interface Industrial PC	Industrial PC 12" capacitive color screen display 1024 x 768 screen resolution Branson Interface System		
Light Curtain	Based on customer preference Keyence / Sick / Sunx		
Force Control	Direct force measuring (Closed Loop)		
Table Position Control	Full stroke		

LIFT TABLE DRIVE		
Design	Servo Motor; Drive Chain Mechanism	
Lift Table Velocity	0 – 500	mm/s
Clamp Force	1 – 25	kN
IR Preheating Drive Velocity (CVT)**	1000	mm/s
PNEUMATICS		
Type (Standard, Alternative: See Spec.)	Based on customer preference Festo / Numatics / SMC	
Input Air Pressure	6 – 10	bar
Functions (Standard, Alternative: See Spec.)	6	
SOUND ENCLOSURE		
Noise Emission (EN ISO 11202)	Maximum 77dB(A)	dBA
Front Door (H x W x Level Above Floor)*	820 x 1400 x 940	mm
Rear Maintenance Door(s) (Inside Opening H x W)*	1850 x 1410	mm
Machine Colors	RAL9011, RAL7011 (Outside), RAL7011 (Inside)	
CONNECTIONS		
Pneumatal	1/2"	inch
Electrical (Connection)	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	
AMBIENT CONDITIONS		
Temperature	min. +15 – max. +35	°C
Humidity (No Condensation)	30 – 95	%
Altitude (Above Sea Level)	max. 1000	m

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

**Only valid for IR preheating (CVT)

To learn how Branson's expertise can help you adapt to industry changes, contact the regional center nearest you.

Americas

Branson Ultrasonics Corp.
41 Eagle Road
Danbury, CT 06810, USA
T: 203-796-0400
F: 203-796-0450
www.bransonultrasonics.com

Europe

Branson Ultraschall
Niederlassung der Emerson
Technologies GmbH & Co. OHG
Waldstrasse 53-55
63128 Dietzenbach, Germany
T: +49-6074-497-0
F: +49-6074-497-199
www.branson.eu

Asia

Branson Ultrasonics (Shanghai) Co., Ltd.
758 Rong Le Dong Road
Song Jiang, Shanghai, PRC, 201613
T: 86-21-3781-0588
F: 86-21-5774-5100
www.branson.com.cn

All specifications are subject to change without notice. All dimensions are nominal.

All units comply with FCC rules and regulations governing radio frequency interference. CE units are available.

Note: All sales shall be subject to the Supplier's terms and conditions of sale in Branson's quotations and sales contracts.