

Series A-5 Vibration Welder

Plastic Vibration Welding

Features & Benefits

The Branson™ A-5 series sets industry standard of welding configurability, safety, accessibility, and user-friendliness. The customer-oriented design offers efficient process and flexibility to solve varying application needs.

Weld quality and consistency are ensured with Torsion-resistant machine frame, hydraulically driven lift table and vibration head with proven design.

A rugged Programmable Logic Control (PLC) controls an exceptionally user-friendly machine with intuitive navigation displayed on a touch screen with a graphical TFT display.

Differentiators

- Shorter cycle time enables higher throughput
- Large clearance space accommodates applications of varying sizes
- Full lineup of product variants that supports diversified customer needs



Technical Specifications

Mechanical		A502HJ	A5i1HJ	A5i2HJ	A5i3HJ
Overall Dimensions (H x W x D)	mm	2268x 2250 x1408			
Dimensions with open Doors (H x W x D)	mm	2268x 2850 x 2490			
Upper Fixture (oscillating Head, W x D)	mm	762 x 356	390 x 376	880 x 376	880 x 376
Lower Fixture (stroking Table, W x D x Level above Floor)	mm	1020 x 540 x 1067			
Hole in the Table (W x D)	mm	660 x 250			
Clearance between the Column Supports	mm	1084			
Clearance between the Table and the Head	mm	515	615	615	615
Table Stroke	mm	0 - 500			
Min. Tooling Height	mm	95	125	125	125
Weight	kg	Approx.3200kg	Approx.3700kg	Approx.4300kg	Approx.4300kg

For more information:
www.Emerson.com/Branson

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Technical Specifications

Oscillating Head		A502HJ	A5i1HJ	A5i2HJ	A5i3HJ
Type		Standard M502H	Standard I1 Head (PPL)	Standard I2 Head (PPL)	Standard I3 Head (PPL)
Kinematics		Linear Vibration			
Frequency (nominal, depending on the Tooling Weight)	Hz	Approx. 240			
Amplitude	mm	0 - 1.8			
Tooling Weight	kg	15-25	20 - 40	35 - 65	40 - 70
Performance (Weld Area, depending on the Material)	cm ²	25 - 150	50 - 150	50 - 150	50 - 300
Positioning Accuracy	mm	±0.05	±0.05	±0.05	±0.05
Hole in the Driverbox (W x D)	mm	660 x 250	None	Limited Open area	Limited Open area
Drive System					
Type		Branson Frequency Inverter			
Power Consumption	kW	22	15	15	30
Machine Controls					
PLC Type (standard, alternative: see Spec.)		MITSUBISHI Q	MITSUBISHI Q	MITSUBISHI Q	MITSUBISHI Q
OP Type (standard, alternative: see Spec.)		Pro-face, GP4000 series			
Table Position Control		Full Stroke (balluff)	Full Stroke (balluff)	Full Stroke (balluff)	Full Stroke (balluff)
Penetration Control		Closed Loop			
Hydraulics					
Type (standard, alternative: see Spec.)		Tokyo Keiki	Tokyo Keiki	Tokyo Keiki	Tokyo Keiki
Clamp Force	kN	Max. 18	Max. 18	Max. 18	Max. 18
Oil (required Capacity for Setup, Specification)		25 L,ISO VG32	25 L,ISO VG32	25 L,ISO VG32	25 L,ISO VG32
Stroke Speed of the Table	mm/s	Max. 200	Max. 200	Max. 200	Max. 200
Pneumatics					
Type (standard, alternative: see Spec.)		AVENTICS			
Input Air Pressure	bar	6 - 10			
Functions (standard, alternative: see Spec.)		4			
Sound Enclosure					
Type (standard, alternative: see Spec.)		Normal			
Noise Emission(GBZ/T 189.8-2007)	dB(A)	≤ 85			
Front Door (H x W x Level above Floor)	mm	710x 1045x 1040			
Maintenance Door (inside Opening, H x W)	mm	1680 x 1015			
Color (standard, alternative: see Spec.)		RAL 7035 (Light Grey)			

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Connections (standard, alternative: see Spec.)		A502HJ	A5i1HJ	A5i2HJ	A5i3HJ
Pneumatical		Inlet 12 mm			
Electrical		3 x 200 V, PE, 50/60Hz	3 x 200 V, PE, 50/60Hz	3 x 200 V, PE, 50/60Hz	3 x 200 V, PE, 50/60Hz
Power Consumption	kVA	14	20	20	32
Max. Current (main Fuse)	A	40(50)	49(50)	49(50)	92 (125)
Input Power Cable	mm ²	4 x 10	4 x 10	4 x 10	4 x 35
Data Interfaces		Serial Port			
Ambient Conditions					
Temperature	°C	+15 - + 40			
Humidity (no Condensation)	%	30 - 95			
Altitude (above sea level)	m	< 1000			

- * Dimensions can vary due to switches, pneumatic input unit, rubber elements, tolerances, and other options.
The contents of this publication are presented for information purposes only.
We reserve the right to modify or improve the designs or specifications of our products at any time without notice.
- * Please confirm with Branson engineer whether the parameter " Clearance between the Table and the Head" is applicable to the existing tooling.