

BRANSON



Data Sheet
VW-UH-1

Ultra Hy-Line Series Models VW4UH-1, VW6UH-1, and VW8UH-1 Linear Vibration Welders

General Description

Branson, the pioneer in vibration welding with over 25 years of real-life production experience, introduces an enhanced version of its popular Ultra Hy-Line Series linear vibration welders. Branson's Ultra Hy-Line-1 Series vibration welders are complete assembly systems designed to weld parts up to 58" by 22" (1473 by 559 mm), or multiple smaller parts.

This state-of-the-art equipment gives precise control over the total weld process by:

- Using four weld intervals with profilable amplitude and force
- Providing alarm monitoring and self-diagnostics
- Implementing precise table positioning
- Utilizing an industrial computer for setup storage and SPC



New Features

- ✓ Improved ergonomics
- ✓ Increased power
- ✓ High clamp force

Standard Features	Benefits
Color touch screen Human-Machine Interface (HMI) with Windows NT (Pentium based)	Quick setup; user friendly; increased graphical representation of machine functions
Complete machine setup storage (limited only by hard disk space)	Quick part/fixture changeover
Lift table linear displacement transducer	Precise table positioning and melt collapse measurement
Digital vibrator drive	Increased amplitude control and reliability
Automatic tuning	Quicker setup with no additional adjustment required
Amplitude and force profiling	Improved weld consistency; better control of flash
Process verification through alarm limits	Ability to define acceptable process windows
Statistical process control (SPC)	Ability to monitor and chart process data
Hydraulic lift and clamp	Accurate table positioning and force control
Front panel printer	Hard copy printout of process parameters, last cycle data, and average of last five cycles
Light curtain with single optical start button	Safety/operator protection; single finger button cycle activation frees operator for increased productivity

Additional Features

- Improved ergonomics – table height lowered to 35" and door opening increased providing easier access for part loading and unloading.
- Power sensor
- Configurable I/O
- Self tune
- Metric or SAE display
- Auto tool I.D. for faster changeovers
- Security features

Options

- External overhead work light
- Front maintenance access doors
- Adjustable start button mount
- Pneumatic quick disconnects for tooling
- Dual lift cylinders (provides 21"/533 mm stroke and table opening depth of 12.5"/317 mm)
- Multiple languages for HMI
- Front clamp pressure gauge

(continued)

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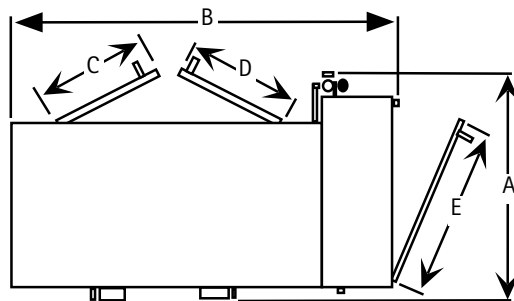
Specifications

Note: All dimensions are nominal.

Note: All specifications subject to change without notice.

	VW4UH-1	VW6UH-1	VW8UH-1
MECHANICAL			
Weight:	Approx. 4,500 lbs. (2,040 kg)	Approx. 5,000 lbs. (2,268 kg)	Approx. 6,500 lbs. (2,720 kg)
Dimensions: Overall:	84" wide x 74" high x 48" deep (2134 x 1880 x 1219 mm)	96" wide x 74" high x 70" deep (2438 x 1880 x 1778 mm)	108" wide x 74" high x 70" deep (2743 x 1880 x 1778 mm)
Lift table:			
Overall:	33.5" long x 21" deep (851 x 534 mm)	46" long x 21.5" wide (1168 x 546 mm)	58" long x 23" wide (1473 x 584 mm)
Central opening:	23.5" long x 11.5" wide x 1.3" deep (597 x 292 x 33 mm)	38" long x 11.5" wide x 1.75" deep (965 x 292 x 44.4 mm)	50" long x 11.5" wide x 1.75" deep (1270 x 292 x 44.4 mm)
Drive platen:			
Overall:	30" long x 18" wide (762 x 457 mm)	40" long x 18" wide (1016 x 457 mm)	58" long x 23" wide (1473 x 584 mm)
Central opening:	15" long x 12" wide x 7.5" deep (381 x 305 x 190 mm)	30" long x 12" wide x 8" deep (762 x 305 x 203 mm)	43" long x 12" wide x 8" deep (1092 x 305 x 203 mm)
Front opening:	37" wide x 25" high (940 x 635 mm)	49" wide x 25" high (1245 x 635 mm)	61" wide x 25" high (1550 x 635 mm)
Variable stroke:	20" (508 mm) maximum	20" (508 mm) maximum	20" (508 mm) maximum
Noise level:	83 dBA standard	83 dBA standard	83 dBA standard
Power:	15 Hp/11 kW	20 Hp/15 kW	20 Hp/15 kW
ELECTRICAL			
Power requirements:	480VAC, 20 amps, 3 phase, 60 Hz	480VAC, 20 amps, 3 phase, 60 Hz	480VAC, 20 amps, 3 phase, 60 Hz
Output frequency:	180 - 240 Hz variable	180 - 240 Hz variable	180 - 240 Hz variable
Ambient temp:	32 - 105° F (0 - 40° C)	32 - 105° F (0 - 40° C)	32 - 105° F (0 - 40° C)
PLC	Allen-Bradley or Siemens		
PERFORMANCE			
Driven platen fixture weight capacity:	35 lbs. (16 kg) recommended (50 lbs. (22.6 kg) maximum)	45 lbs. (20 kg) recommended (80 lbs. (36.3 kg) maximum)	110 lbs. (50 kg) recommended (120 lbs. (54.4 kg) maximum)
Max. clamp force:	4,000 lbs. (17.8 kN)	6,000 lbs. (26.7 kN)	6,000 lbs. (26.7 kN)
Amplitude range:	0.040" to 0.070" (1.0 to 1.8 mm)	0.040" to 0.070" (1.0 to 1.8 mm)	0.040" to 0.070" (1.0 to 1.8 mm)
Lift table speed:	10"/sec. (254 mm/sec.)	10"/sec. (254 mm/sec)	10"/sec (254 mm/sec.)
Total dry cycle time (without welding):	5.0 sec. (at 20" [508 mm max.] stroke)	5.0 sec. (at 20" [508 mm max.] stroke)	5.0 sec. (at 20" [508 mm max.] stroke)

Dimensions



	VW4UH	VW6UH	VW8UH
A	48.00	70.00	70.00
B	84.00	96.00	108.00
C	38.25	25.00	31.50
D	N/A	25	31.50
E	32.88	29.00	29.00
E'	N/A	29.00	29.00

Note: VW6UH-1 and VW8UH-1 have two electrical enclosure doors.

Options, continued

- Special paint
- External duplex outlet
- Cycle counter with key reset
- PLC window in electrical cabinet door

Ordering Information

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

Branson EDP No.

Model VW4UH-1 vibration welder 300-101-089
 Model VW6UH-1 vibration welder 300-101-090
 Model VW8UH-1 vibration welder 300-101-091

Warranty

The Ultra Hy-Line-1 Series welders are warranted to be free from defects two years for parts and one year for labor starting from date of shipment.

www.Branson-PlasticsJoin.com

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VW-UH-1

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