

## 912

## BORN HYBRID

## INPUT

Power supply	[50HzThree-phases+N+GND]	400V a.c.
Pneumatic power (min.)	[bar]	5
Max. power required (peak load)	[kW]	27
Power consumption	[kWh]	

## OUTPUT

Generator power	[kW]	18
Vibration frequency	[Hz]	220-240
Vibration amplitude	[mm]	0,4-1,8
PP equivalent welding area <sup>1</sup>	[cm <sup>2</sup> ]	400
Upper tool weight (max.)	[kg]	75
Mirror tool weight	[kg]	0

## CONTROL

PLC Control	ET 200 SP Open Controller
HMI	Touch panel 15"
Vibration frequency tuning <sup>2</sup>	Continuous REALTIME
Welding steps (pressure, amplitude)	8
Welding depth sensitivity	[mm] 0,05
Work settings memory	63 automatic equipment
Type of communication <sup>3</sup>	Profinet/Profibus

## REFERENCES

Noise level <sup>4</sup>	[dBA EN ISO 11202] ≤ 80
Work outcome definition	Automatic (good/reject)
Work outcome printer	Custom Plus
Vacuum circuit	2 (opt. up to 3)
Pneumatic valves movements	5
Remote-assistance	Optional

<sup>1</sup>Size of the area detected in the test environment.

<sup>2</sup>Thanks to our third-generation controller we have been able to eliminate the necessity of the auto-tuning cycle: the machine can adapt to the vibration frequency in real-time following the mechanical reactions of the vibrating system. Therefore, the outcome is a neater and more efficient vibration than the one obtained employing second-generation old systems.

<sup>3</sup>The digital generator ensures very short swing on/off vibration phases (50 ms).

<sup>4</sup>Peak values can be higher for short periods depending on the application.

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The machine can be customized with some standard options. Contact us for personalized offer.



Vibration welding melts thermoplastic surfaces through friction, creating strong bonds without external heat.

## BORN HYBRID

It combines vibration and infrared technology within a compact body

## MORE INFO



YOUR PARTNER  
IN PLASTIC JOINING

## Vibration Welding Strong Points

Real-time tuning  
Wide rear opening  
Soundproof structure  
Quick vibration stop  
Compact and complete  
Always available  
63 tool memories

CEMAS Elettra is the only Italian company that design and build vibration welding machines.

### MORE INFO

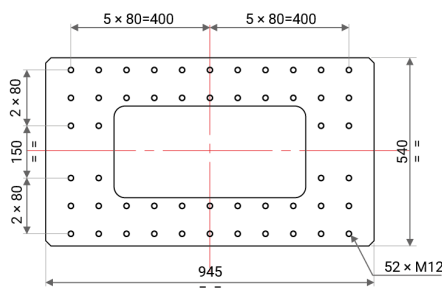


YOUR PARTNER  
IN PLASTIC JOINING

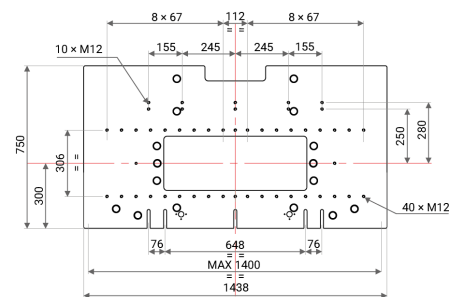
### MECHANICAL DATA

Vibration plate dimensions	[mm]	945x540
Lower plate max. dimensions	[mm]	1315x540
Lifting table stroke	[mm]	500
Lifting table maximum speed	[mm/s]	500
Clamp net force (gross)	[kN]	18 (23,3)
Lifting table dimensions	[mm]	1438x750
Lifting table height	[mm]	1000
Front-door span	[mm]	1410x750
Upper door threshold	[mm]	1720
Clearance between planes	[mm]	700
Overall dimensions (WxDxH)	[mm]	3420x1830x2345
Total weight	[kg]	6200
Hydraulic oil	[kg]	N.A.
Machine type		Full electric

### UPPER PLATE



### LOWER PLATE



### OVERALL DIMENSIONS

