c.VACUNITE 24 | 12 | 6

Vacuum soldering systems for R&D and pilot scale production



The centrotherm c.VACUNITE contact heat system platform covers a wide range of thermal vacuum applications. The versions 24, 12 and 6 are designed for process performance-based R&D and pilot scale production. In the field of vacuum soldering the systems meet highest requirements of voidless soldering for Advanced Packaging and Power Semiconductor applications. The void-affected area can be reduced to less than 1% whereas common reflow soldering systems range at 5%.

c.VACUNITE systems ensure fast heat-up and cool-down rates for short cycle times and reach temperatures up to 450 °C.

c.VACUNITE vacuum soldering systems allow processes under pure and oxygen-free atmospheres and provide surface activation with 100% hydrogen (H_2), formic acid (HCOOH) or forming gas (N_2H_2). All systems are suited for 100% paste and flux.

The process control computer is equipped with a user-friendly touch screen for operating, process profile editing and recipe storing. Accessibility through Ethernet and USB interfaces allows connection with printers, external storage devices and remote access.

HCOOH

H_2 HYDROGEN CAPABILITY

AUTOMATED OPERATION

centrotherm

FEATURES

- Excellent temperature uniformity ±0.5%
- 100% suitable for paste and flux
- Independent and separately controllable gas lines
- Flux management
- Remote access for service
- Cooling water supply by open water cooling system or domestic water supply
- Safety PLC
- Maintenance friendly design for high uptime

TYPICAL APPLICATIONS

- Power semiconductor applications
- Advanced packaging
- Hybrid microelectronic assemblies
- Optoelectronic packaging
- Hermetic package sealing
- Wafer level packaging
- UHB LED packaging
- MEMS package sealing
- Glass bonding
- Copper annealing
- Thermal processes in various atmospheres
- Inert gas | Annealing | Oxidation

OPTIONS

- Pure hydrogen (H_2)
- Vacuum system with dry pump
- Customized MES interface

	c.VACUNITE 24	c.VACUNITE 12	c.VACUNITE 6
Plate size	410x230 mm^2	300x300 mm^2	200x200 mm^2
Max. substrate height	150 mm	160 mm	120 mm
Max. load	15 kg	7,5 kg	4 kg
Process gases	N_2, H_2 (100), N_2H_2 (95/5), HCOOH		
Vacuum level	0.1 mbar	0.1 mbar	0.1 mbar
Vacuum pump (oil-sealed)	25 m^3/h	25 m^3/h	25 m^3/h
Heat-up rate*	40 K/min	60 K/min	60 K/min
Cool-down rate*	100 K/min	100 K/min	100 K/min
Process temperatures	up to 450 °C	up to 450 °C	up to 450 °C
System weight*	420-480 kg	400-420 kg	400-420 kg
Dimensions (LxWxH)*	1332x746x2000 mm^3		

* Standard version without suction hood. Values may vary depending on specific system design.

contact us!

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