

G.VACUNITE 24 | 12 | 6



**VACUUM SOLDERING SYSTEMS
FOR R&D AND PILOT SCALE PRODUCTION**



HCOOH



100 %
paste & flux



Hydrogen
capability



Automated
operation

centrotherm c.VACUNITE contact heat systems cover 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 used in 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 reach temperatures up to 450 °C with fast heat-up and cool-down rates for short cycle times.

c.VACUNITE allows processes under pure and oxygen-free atmospheres and provides surface activation with 100% hydrogen (H₂), formic acid (HCOOH) or forming gas (N₂H₂). 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.

TYPICAL APPLICATIONS

- Power Semiconductors
- 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

FEATURES & BENEFITS

- Excellent temperature uniformity $\pm 0.5\%$
- 100% suitable for paste and flux
- Independent and separately controllable gas lines
- Flux management
- Chamber door features an electric drive
- Remote access for service
- Safety PLC
- Maintenance friendly design for high uptime
- MES connection via OPC-UA

KEY DATA

	G.VACUNITE²⁴	G.VACUNITE¹²	G.VACUNITE⁶
Plate size	410 x 230 mm ²	300 x 300 mm ²	200 x 200 mm ²
Max. substrate height	160 mm	160 mm	120 mm
Max. load per plate	15 kg	7.5 kg	4 kg
Possible process gases	N ₂ , H ₂ (100), N ₂ H 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)*	1332 x 746 x 2000 mm ³	1332 x 746 x 2000 mm ³	1332 x 746 x 2000 mm ³

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

OPTIONS

- Pure hydrogen (H₂)
- Vacuum system with dry pump
- Customized MES interface

centrotherm international AG
 Württemberger Str. 31
 89143 Blaubeuren, Germany
 T +49 7344 918 0
 F +49 7344 918 8388
 info@centrotherm.de