

SiCma

Specially developed for the production of silicon carbide crystals by means of physical vapor transport



The **SiCma** system is specifically designed to produce silicon carbide (SiC) crystals using the Physical Vapor Transport (PVT) method.

In this process, the initial powdered material is heated to high temperatures, sublimated, and finally deposited onto a specially prepared substrate. This is accomplished by inductive heating in the kilohertz range using a specially optimized coil design for minimal energy consumption. The substrate size can be 150 or 200 mm in diameter (6" or 8"). With a high degree of automation and a compact footprint, the system is tailor-made for efficient mass production.



Optional Accessories:

- Loading/ Unloading Cart, electrical
- Top-Pyrometer, 2-colors, 850 °C - 3,000 °C
- High Vacuum Pumping Unit
- Hotzone Lifting Unit, 0.1 mm/h - 460 mm/h
- Hotzone Rotation Unit
- Upgrade Kit 8"
- VPN-Modem for Remote Support
- Dummy Hotzone for Calibration
- Spare Parts Package



Compact footprint of e.g. 10 systems

TECHNICAL DATA

Inner diameter process chamber size 1	378 mm
Inner diameter process chamber size 2	430 mm
Height incl. signal lamp	3,484 mm
Width	1,200 mm
Depth (incl. operating panel)	3,550 mm
Depth (with moved out generator)	4,550 mm
Total weight	approx. 1,850 kg
Frequency	6 - 10 kHz
Working pressure	1 - 900 mbar
Working temperature	max. 2,400 °C

PVA TePla in Power Electronics Industries

PVA TePla's equipment solutions for the Power Electronics Industry include also the Floatzone System FZ35 and various CZ-systems for growing Si-crystals with highest purity as well as a vacuum furnace for graphite cleaning and recycling of susceptors after GaN-epitaxy. Different innovative metrology technologies of PVA TePla are available for non-destructive quality inspection.