

PV 20

DIRECTIONAL SOLIDIFICATION FURNACE G1

550mm*550mm*750mm



The **PV20** furnace is a directional solidification furnace from **ECM Lab Solutions**. It is ideal for G1 silicon ingot crystallization, up to 20 kg, and adheres to directional solidification process engineering requirements at laboratory or pilot scale. The PV20 furnace is available with Crystalmax® cast-mono technology, and designed with a three-zone thermal set-up. This set-up enables high reliability, reproducibility, and flexibility in the process growth of silicon ingots. The furnace is user friendly and designed specifically for research and development.



■ PV (Solar) Renewable Energy

APPLICATION

Silicon ingot crystallization

INTEGRATION

Turnkey Line

AN ECM GROUP OFFER

ECM Lab Solutions helps laboratories to develop innovative products and processes by offering advanced furnace technologies under one ECM Group brand. This offer gathers all laboratory furnaces from the ECM Group. Its expertise includes the heat treatment of steels, ceramics and silicon. As well as crystal growth applications, coatings and melting processes for a wide range of research fields.



FEATURES

Vessel

Water cooled double walls made of stainless steel (Cold wall technology)

Vacuum

Ultimate vacuum level 1.10⁻³mbar

Working vacuum level: from 1.10⁻² to 1.10⁻³mbar

Pressure

Partial pressure of Argon neutral gas

Maximal pressure patm+50mbar

Maximum temperature

1550°C (1575 °C)

Heaters

120 kW, 3 heating zones

Safety

Optimised design to limit the consequences of a silica crucible breakage

Maximum heating rate

500 °C/hour

Heating elements

Graphite

Insulation casing

60 mm graphite

Ingot

Dimensions : G2, suitable to cut 4 bricks (156×156 mm²)

Weight : Up to more than 20 kg

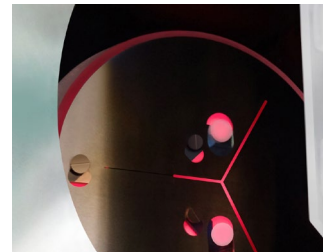
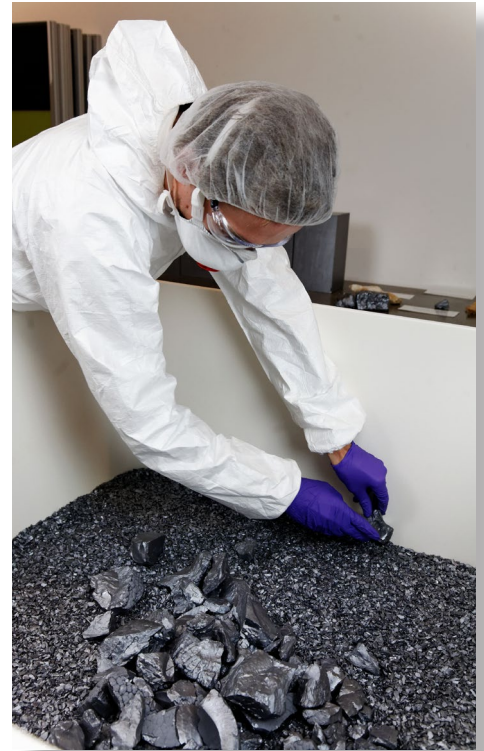
Growing technology : CrystalMax® cast-mono, HP-multi or multicrystalline

Ergonomics

Loading : Bottom loading /unloading, safe and easy

Supervision : Touchscreen interface

Operation modes : Fully automatic thermal cycle or manual mode



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