Floatzone silicon single crystal grower

Technical Data

Max. Crystal Pulling length: 2,700 mm
Maximum poly length: 2,000 mm
Crystal diameter: Up to 200 mm
Pulling speed: 0 – 30 mm/min
Fast travel: 600 mm/min
Rotation speed: 0 - 30 rpm

RF-Generator
RF output power: 120 kW
RF frequency: 2.5 MHz nominal
Power control: SCR-power thyristor triggered by pulse transformers
Oscillator valve: water-cooled ceramic type ITK 60

The floor area required for the complete set-up including vacuum/gas system, control panel, operator’s platform and computer station is approx. 5 x 6 meters (excluding the generator).

Weight: approx. 14,000 kg (net)
The weight includes the high frequency generator and control panel.

Cooling water
- Mechanically clean (mesh width 0.38 mm)
- Carbonate hardness max. 8° DH
- Chemically neutral
- Electrical conductivity max 300 µS
- max. outlet pressure 0.5 bar

FZ-system
Quantity: approx. 100 l/min
Pressure: 4 - 6 bar
Temp. Inlet: 12 - 25 °C
Temp. Outlet: max. 35 °C

Argon supply
Quantity: 20 l/min during growth
Quantity quick fill: 250 l/min for purging
Pressure: 5 - 12 bar, recommended 10 bar
Quality: according to Semi standard C57-0305, grade 4.8