

CZOCHELSKI PULLER (CZ)

SINGLE
CRYSTAL
PULLER
FURNACE



The **Czochralski puller** furnace come in a variety of sizes, heating power elements and intensities. The heating technology can be inductive or resistive depending on the process requirements. The size of the crucible can reach 400 mm diameter and have a working temperature up to 2300°C.

These machines are all equipped with the precise and stable **Cyberstar** pulling head having a conversion rate of 0.01 to 100 mm/h translation speed. Full monitoring and control of the growth is provided with the inclusive intuitive and user friendly Cyberstar pulling software. This allows for the fully automatic growth of the crystal after the dipping of the seed which is based on predefined crystal geometry, created by the user, in the dedicated geometry definition window of the software.

DIMENSIONS

Crystal size up to 6"

- Medical Imagery
- LED
- PV
- Solid lasers
- Sensors
- Defense

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

Cyberstar precise pulling head

Translation speed from 0.01 mm/h to 100 mm/h and in fast mode up to 100 mm/min

Precise pressure regulation system

Graphite heater or induction

Equipped with quartz (or sapphire) window view ports

Chamber capabilities for primary and secondary vacuum

Various Crystal sizes up to 60 kg in the automatic mode

Various chamber topologies

(vertical axis, front door opening)

Operating security loop system

Water cooled

(working temperature in the reactor up to 2600 °C)

Various Crystal sizes up to 100 kg capability



OPTIONS

- Automatic diameter control using Cyberstar pulling software
- Possibility to operate under high pressure
- Weighing device up to 60 kg
- Added crucible translation (manual or automatic)
- Precise pressure regulation system
- Controlled mass flow of different atmosphere gases
- ASME Standard

INTEGRATION

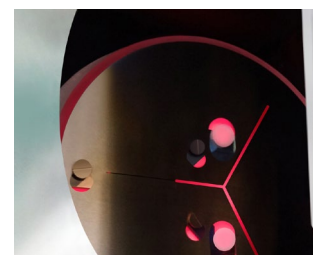
Possibility of Automation and software controlled growth process



MATERIAL

- BGO
- SoG c-Si
- YAG
- Sapphire
- III-V
- GeSilicon
- Ca F2
- LSO
- InSb

Cyberstar



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