

# Czochralski crystal-growing system CGS-Lab

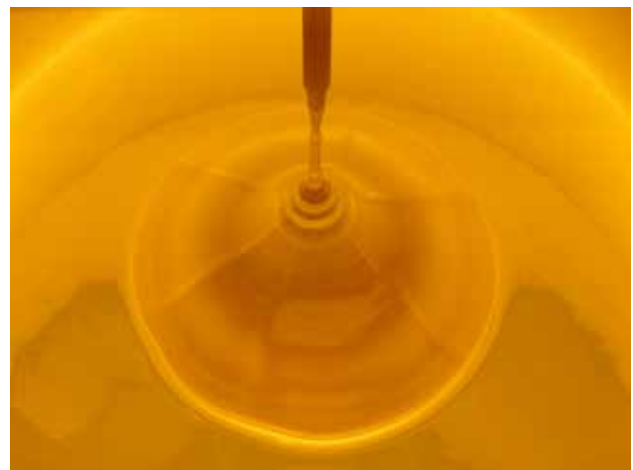
Specially developed for institutes and laboratories



The **CGS-Lab** is the smallest Czochralski crystal growing system in our portfolio and specially designed for institutes and laboratories. The 10 inch hotzone is designed for a charge of up to 5 kg silicon and ingots with a diameter of 100 mm and a length of 300 mm. With a height of 3.4 m when open, the height requirement for the installation site are rather low. The pulling and rotation speeds are adapted for the production of specified ingot sizes. With the aid of a camera system for diameter measurement and two pyrometers for temperature measurement, automatic process control is possible by means of a PLC (programmable logic controller) and PC. A system of vacuum pumps and dust filter (SiO) adapted to the needs of the plant is offered.

**Necessary Accessories:**

- - Vacuum Pumps
- - SiO Filter System



**TECHNICAL DATA**

|                            |                        |                     |
|----------------------------|------------------------|---------------------|
| <b>Puller Data</b>         | max. Ingot diameter    | 4"                  |
|                            | Ingot length           | up to 300 mm        |
|                            | Charge capacity        | up to 5 kg          |
|                            | Hotzone                | 10"                 |
|                            | Total height (closed)  | 3,000 mm            |
|                            | Total height (opened)  | 3,300 mm            |
|                            | Footprint              | 4,500 mm x 2,100 mm |
| <b>Utilities</b>           | Cooling water          | up to 120 l/ min    |
|                            | Installed heater power | 50 kW               |
|                            | Rated Power            | up to 50 kW         |
| <b>Crucible Drive Unit</b> | Crucible speed         | 0.02 ... 2 mm/ min  |
|                            | Crucible jog speed     | 2 ... 200 mm/min    |
|                            | crucible rotation      | 0.5 ... 35 rpm      |
| <b>Crystal Drive Unit</b>  | Crystal pulling speed  | 0.1 ... 5 mm/min    |
|                            | Crystal jog speed      | 1 ... 500 mm/min    |
|                            | Crystal rotation       | 0.1 ... 35 rpm      |