SolarCrystallizer 22

Crystal Growing Systems
SolarCrystallizer 22

Our solar Czochralski-Puller for mass production of silicon crystals up to 230 mm diameter.

Technical Data

**Puller Data**
- Crucible diameter: 22” (up to 559 mm)
- Crucible height: up to 430 mm
- Crystal diameter: up to 230 mm
- Crystal length: up to 2.8 m
- Charge weight: up to 180 kg*
- Vessel diameter: approx. 934 mm
- Vessel height: approx. 1,520 mm
- Gate valve diameter: 304 mm
- Receiving chamber: tube
- Weight (Puller): approx. 7,100 kg
- Weight (power cabinet): approx. 1,400 kg

*with feeder (initial load max. 130 kg), w/o feeder up to 140 kg

**Crucible Drive Unit**
- Lifting speed: 0.02 … 200 mm / min
- Stroke: approx. 490 mm
- Rotation speed: 1.0 … 35 rpm

**Crystal Drive Unit**
- Lifting speed: 0.1 … 1,000 mm / min
- Rotation speed: 1.0 … 35 rpm

**Utilities**
- Power rating: max. 200 kVA*
- Process gas: max. 100 l / min
- Compressed air: 6 … 8 bar (operating pressure)
- Water inlet pressure: max. 5.0 bar
- Water consumption: approx. 200 l / min (subject to env. cond.)

*incl. vacuum pump, may vary depending on make/type

**System Control**
- Automatic process control by PLC / PC: equipped as standard

**Required Accessory**
- Hotzone
- Vacuum Pump Unit
- SiO Filter System

Dimensions (approx.)

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Opened</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Height</td>
<td>8,780 mm</td>
<td>7,350 mm</td>
</tr>
<tr>
<td>(opened)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(closed)</td>
<td></td>
<td></td>
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<tr>
<td>above Operator Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(opened)</td>
<td>7,180 mm</td>
<td></td>
</tr>
<tr>
<td>(closed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td>3,900 mm</td>
<td></td>
</tr>
<tr>
<td>Depth</td>
<td>3,300 mm</td>
<td></td>
</tr>
<tr>
<td>Clearance Height Lower Level</td>
<td>2,500 mm</td>
<td></td>
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</tbody>
</table>

Optional Equipment
- Production Management System
- Crucible Charging System Type TBS
- Ingot Handling Equipment
- Mobile Feeding System Type SiCharger
- Active Crystal Cooling
- Granular Feeding System

(Optional equipment may increase utility consumptions)

Subject to technical changes

Rev. - Stand: 012