



**EKZ 3000**

## EKZ 3000

State of the art crystal puller  
for 300 mm technology

### Technical Data

#### Puller Data

Crucible Ø :	up to	915 mm (36")
Crystal Ø :	up to	300 mm
Crystal length:	up to	2,100 mm
Charge size:	up to	300 kg
Vessel Ø :		1,320 mm (1,250 mm)
Vessel height:		2,185 mm
Gate valve Ø :		500 mm
Gate chamber design:		door

#### Crucible drive unit

Lifting speed (process):	0.025-4 mm/min
Lifting speed (positioning):	2.5-400 mm/min
Rotation speed:	0.1-20 rpm
Crucible lift:	approx. 970 mm

#### Crystal drive unit

Lifting speed (process):	0.05-8 mm/min
Lifting speed (positioning):	5-800 mm/min
Rotation speed:	0.7-35 rpm

#### Utilities

Electricity:	3AC/PE 400V±5%, 50Hz
[puller with magnet]	450 [800] kVA
Process gas:	max. 200 l/min
Compressed air:	4-6 bar
Water pressure:	max. 4 bar
Water consumption	500 [1,000] l/min
[puller with magnet]	

#### System Control

Automatic process control by PLC / PC

#### Options

Granular feeding system  
Hot zones up to 36"  
SiO filter system

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### Dimensions (approx.)

<b>H</b> Height	
(shaft)	12,700 mm
(cable)	8,800 mm
<b>w</b> Width	2,500 mm
<b>D</b> Depth	2,500 mm

#### Weight

(puller, shaft version)	27,000 kg
(power cabinets) ca.	2,700 kg
(control cabinet)	1,000 kg

- Batch weight up to 450 kg of poly-silicon
- Crystal length up to 2.1 m

### Special Features / Options

- shaft or cable type crystal drive unit (convertible)
- granular feeding system for improved productivity
- crystal supporting device
- cusp field magnet

The crystal puller EKZ 3000 is designed for growing Silicon mono-crystals from the melt according to the Czochralski method. The EKZ 3000 is a production system for crystals of 300 mm diameter and up to 2.1 m length (without neck) and can be used for prototype production of 400 mm crystals. The batch weight for this furnace ranges up to 450 kg poly-silicon. The concept and design of the EKZ 3000 puller signify a major improvement on the technology of smaller size pullers. This state-of-the-art puller is incorporating all Know-how of CGS gained over the years and is considering the requirements of the customer worldwide. This furnace is an excellent tool for meeting today's crystal quality requirements.

