



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 [puller with magnet]	500 [1,000] l/min

System Control

Automatic process control by PLC / PC

Options

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

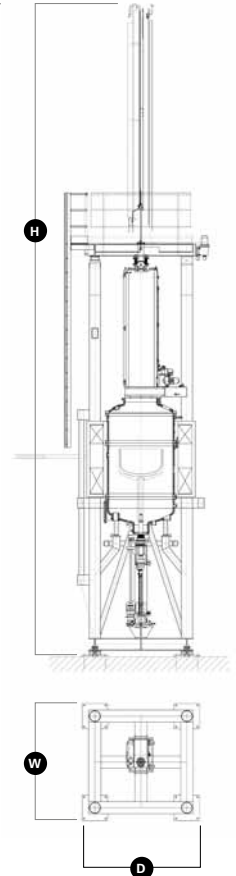
Dimensions (approx.)

Height (shaft)	12,700 mm
(cable)	8,800 mm
Width	2,500 mm
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

Rev. - Stand: 010