

# Super finishing of mono + poly-crystalline silicon blocks for solar wafer

## Grinding Machine MPS 3-134 Twin

Grinding

Machines

Genauigkeits  
Maschinenbau  
Nürnberg GmbH

# G&N



„Stand alone“ - precision grinding machine with two grinding spindles and oscillating traverse table.

TWIN-Spindle - grinding process for rough and finishing of the block surfaces.

Chamfering of the edges and grinding of the faces in the same clamping position (no rechucking).

Chamfering of the edges and grinding of the faces in one process operation.

Automatic handling (loading, unloading, turning) of the block.

Automatic grinding process with integrable block measurement.

Prepared for robot-loading of blocks.

Integrable in a production line.

### Technical Data

Block size	125/150/156 mm
Block length	190 - 300 mm
Flat grinding spindle (Twin spindle)	
AC motor	7.5 kW
Speed	500 - 4000 rpm
Rough and fine grinding wheel (process-oriented)	
Chamfering spindle	
AC motor	2.2 kW
Speed	3915 rpm
Grinding wheel	fine
Block clamping	Vacuum
Block handling	Vacuum
El. connection	10 kW
Water	1.200 l/h (600 l per spindle)
Air	15m <sup>3</sup> /h
Weight	1600 kg
Footprint	3000x 2100 mm
Height	2440 mm

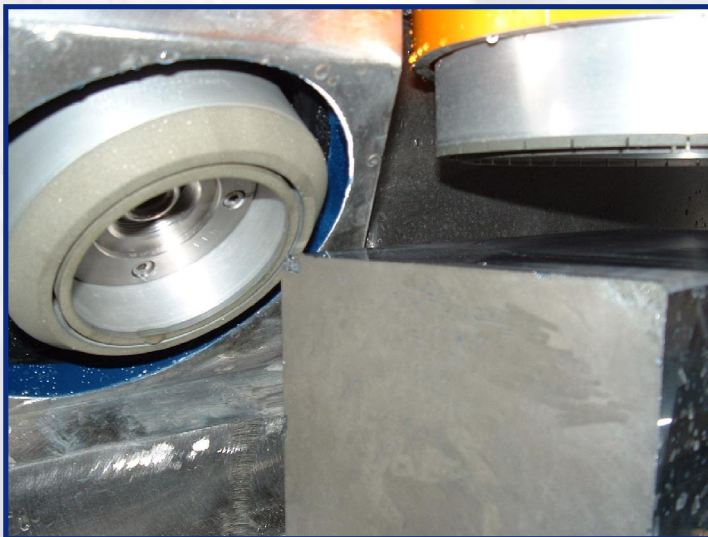
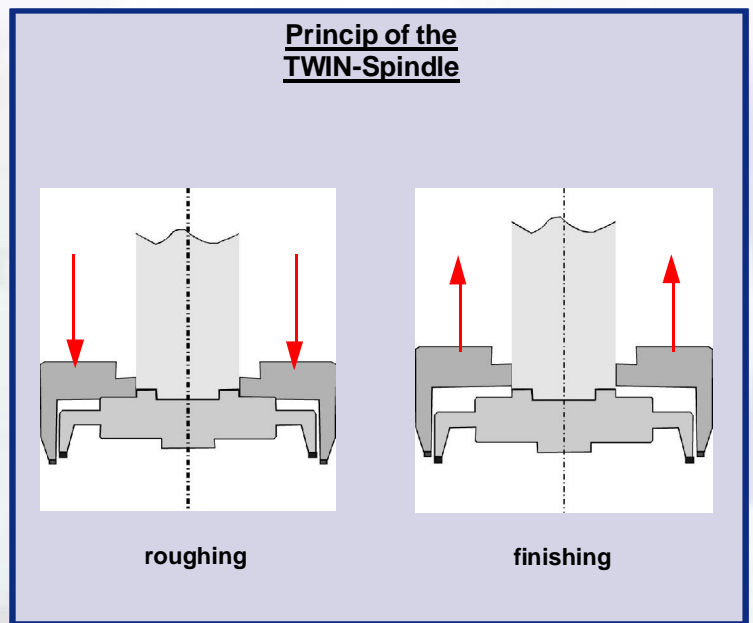
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# TWIN-Spindle - Grinding process

for rough and finishing of the block surfaces.

**the best surface quality**



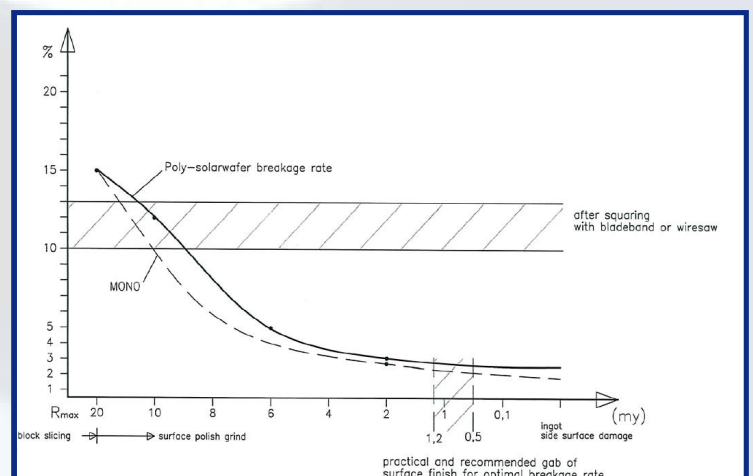
**Chamfering of the edges and grinding of the faces in the same clamping position (no rechucking).**

**Chamfering of the edges and grinding of the faces in one process operation.**

**When fine grinding of the block surface the subsurface damage of the solar blocks is minimized.**

**The high surface quality of the block minimized the breakage of the sawn solar wafers.**

**Reduction of the breakage for PV-wafer against to the edge roughness of the wafer.**



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