



## 72 | 454

OD CROPPING MACHINE

This machine is suitable for cutting squared and as grown mono crystalline silicon work pieces with a length of 1.200 up to 3.000 mm. The Maximal diameter of ingot is 230 mm, the cut off length is between 200 mm up to 1020mm.

- equipped for fully automatic cropping process of complete ingot that means, automatic feed in of ingot, positioning and cutting of top/tail, slug(s) and segments and unloading without manual interference.
- thin blade water hydraulic guidance for thin diamond cutting discs → kerf loss < 1.7 mm
- compact design
- high machine availability 97% acc. to SEMI E10
- very low tool costs → wheel life time between 12.000 and 15.000 cuts
- high process stability
- low investment costs
- cutting force control for an optimized cutting process and to avoid tool damages
- Integrated vacuum chuck for top/tail and slug cut.

#### Specifications:

- arithmetical surface roughness  $R_a \leq 0,8 \mu\text{m}$
- average surface roughness  $R_z \leq 8 \mu\text{m}$
- angle accuracy  $90^\circ \pm 0,1^\circ$  (by square work piece)

#### Throughput:

- cycle time  $\leq 90$  Minuten per ingot (incl. loading, unloading)
- 6 cuts per ingot
- ingots as grown length 2400 mm
- usable ingot length 2000 mm, average segment length 500 mm
- 5 cuts for segments & 1 slug (test wafer) cut

