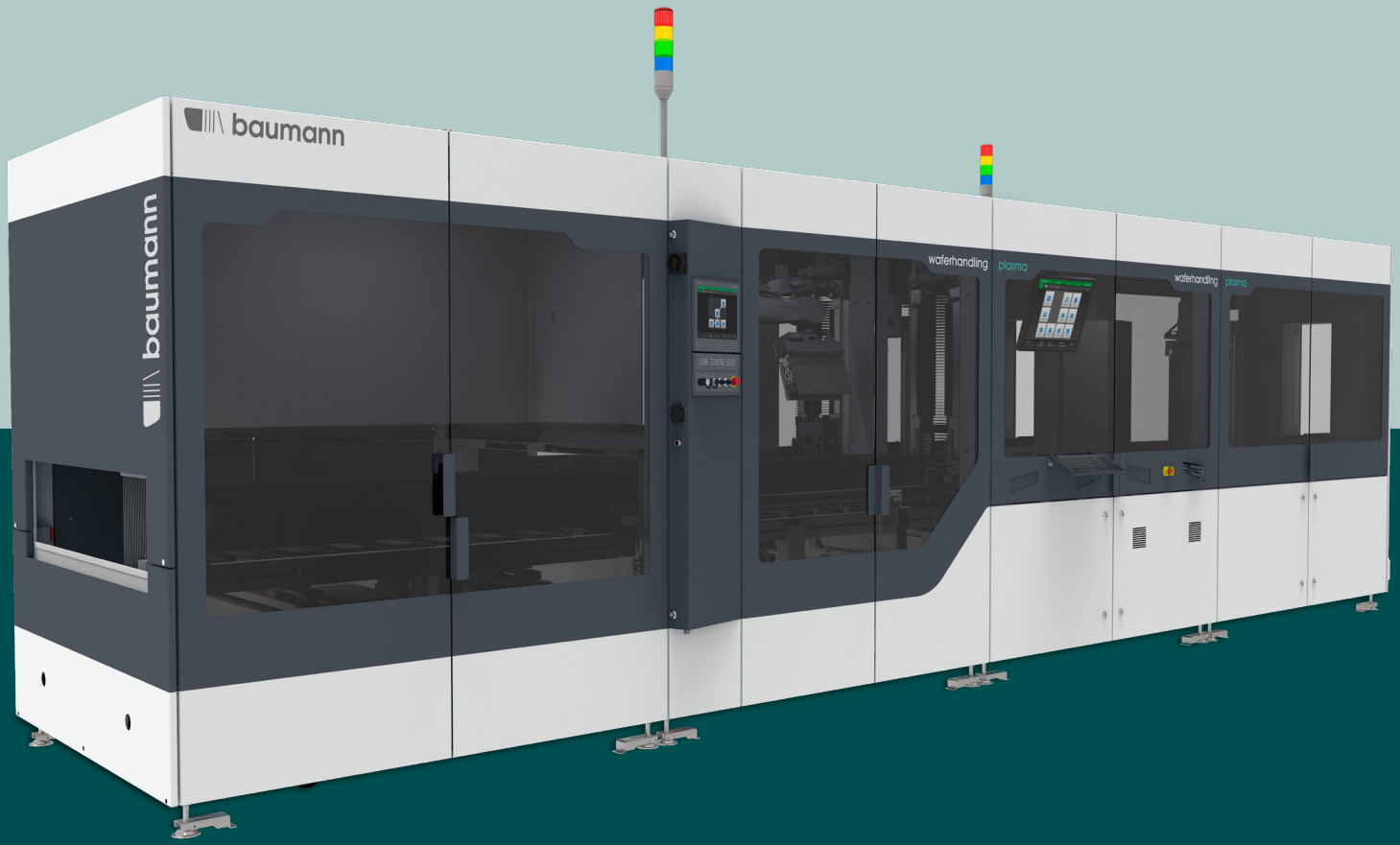
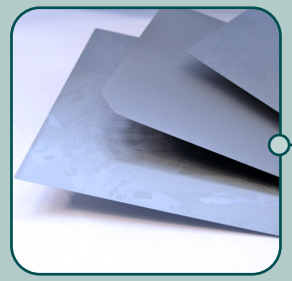
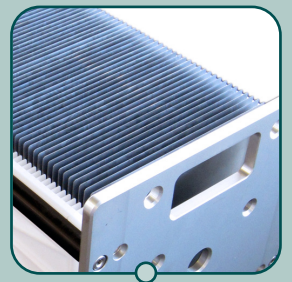
AUTOMATION
baumann







WAFERHANDLING PLASMA

GENERATION 3

WAFERHANDLING PLASMA
GENERATION 3

LOADING AND UNLOADING OF GRAPHITE BOATS

To enhance the efficiency of solar cells they are coated with an anti-reflective film. The film is applied using a special technique called plasma enhanced chemical vapor deposition [PECVD].

Inherently a batch process, a graphite boat is loaded/unloaded with wafers and fed into a furnace. The baumann Waferhandling Plasma fully automates this loading/unloading process and employs a specially developed gripper technology which ensures high handling reliability, while minimizing wafer damage or breakage.

The system incorporates a 6-axis robot, allowing complex loading/unloading procedures with maximum precision. An integrated vision system is used to inspect defects and coating quality after the deposition process.

The baumann Waferhandling Plasma is designed using many standard components, leveraging their inherent reliability, while ensuring flexibility and short delivery times.

KEY DATA

Throughput	up to 5.700 W/h
Breakage rate	≤ 0,1 %
Technical availability	≥ 98 %

TECHNICAL DATA

Wafer infeed/-outfeed
- Chemical Carrier/LSC
- Automation Carrier/TRC
- other carrier types on request

Boot

Graphite boat
- 496 W/boat
- 434 W/boat
- 372 W/boat
- other boat types on request

Furnace interface
- Belt transfer system
- Slider

Handling System
- 6-axis robot with multi-lane gripper mostly 31x or 35x

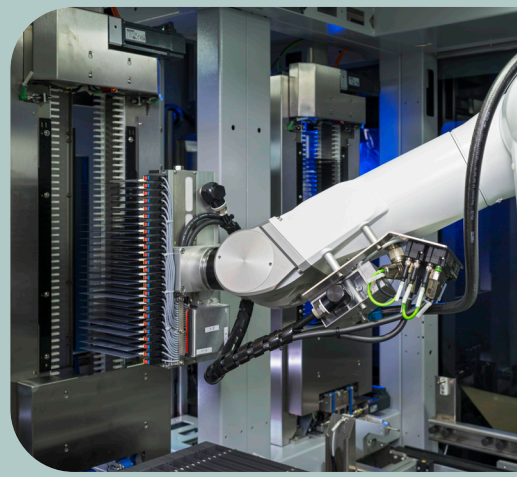
Wafer size
- M6: 166 x 166 mm
- M10: 182 x 182 mm
- M12: 210 x 210 mm

Wafer thickness
- approx. 150 – 330 µm

Dimension
- 4.100 x 1.900 x 2.200 mm (l x b x h)
- without boat changer and test module

Remote maintenance

Options
- Boat changer
- Test module (visual inspection, fail part sorting)
- Virtual wafer traceability
- MES connection (SECS/ GEM)



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