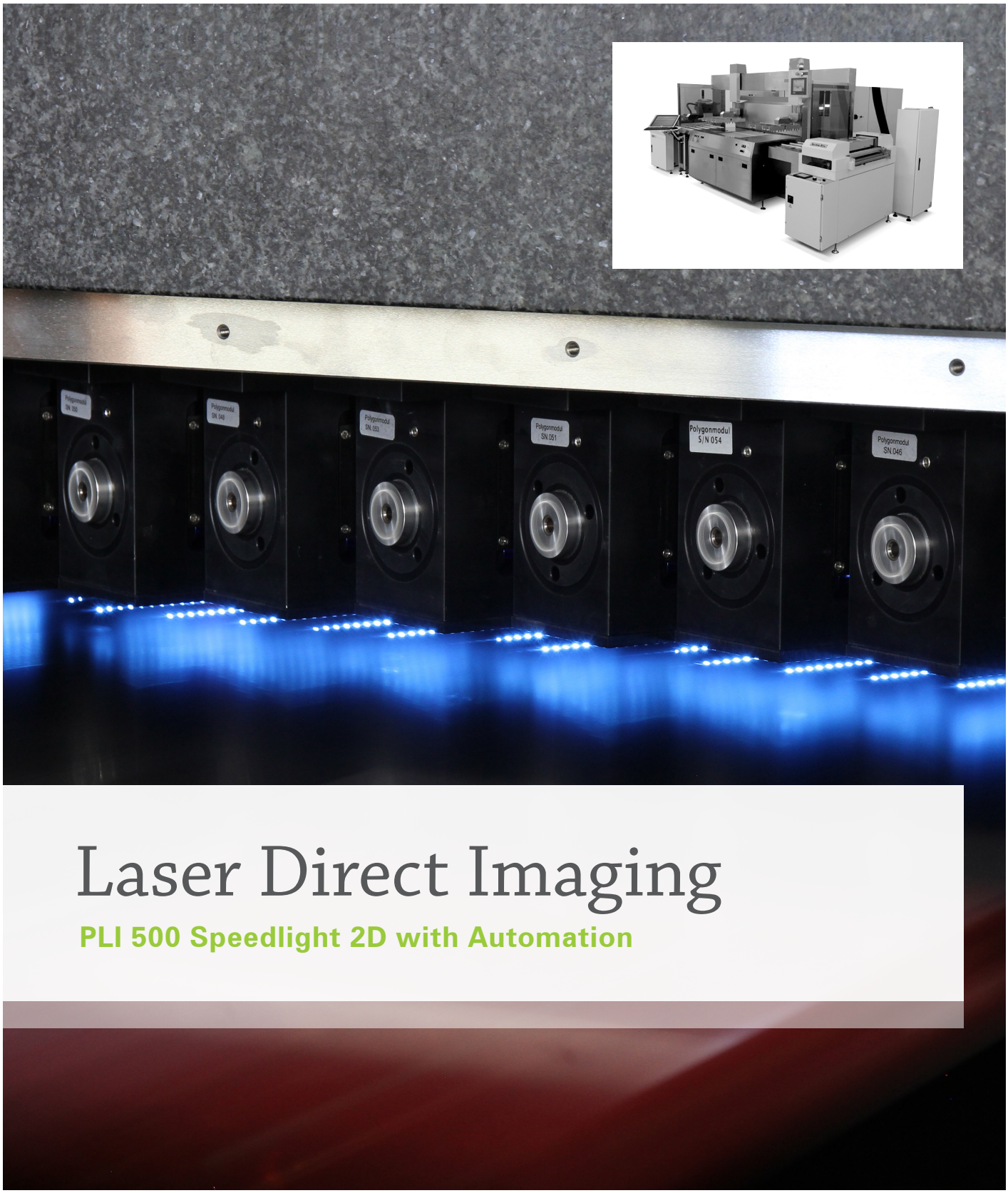
manz
passion for efficiency

LASER DIRECT IMAGING
PLI 500 SPEEDLIGHT 2D WITH AUTOMATION



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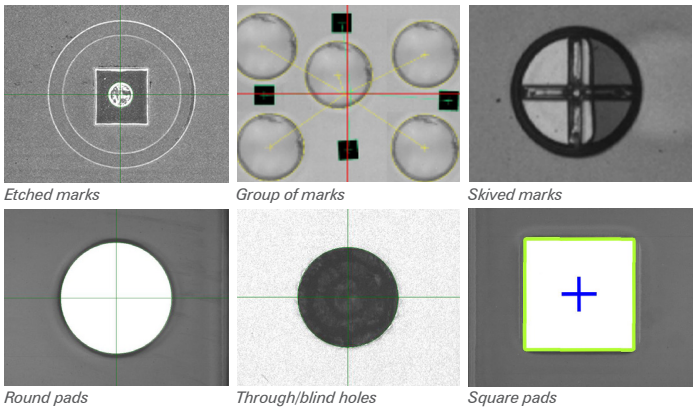
MANZ AG 05/2019

PLI 500 Speedlight 2D with automation.



Registration of a large variety of position marks.

TECHNICAL SPECIFICATIONS

PLI 500

Throughput (18 mJ/cm²)	Up to 320 exposures/hour (160 two-sided DCBs/hour)
Resist pattern	Minimum feature (line/space): 25 µm* Roughness: ± 2.5 µm Data resolution: 2 µm Depth of field: ± 300 µm
Registration	Front to back side: up to ± 10 µm
Panel format	Size, max.: 660 x 650 mm *(expandable to 660 x 850 mm)* Thickness: 0.05 mm – 8 mm Exposure field width, max.: 650 mm
Panel weight	Max. 3 Kg
Light source	Laser diodes with 405 nm wavelength

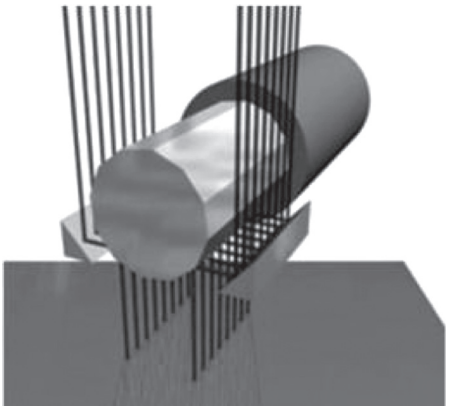
* Requires appropriate resists as well as appropriate upstream and downstream process designs.

FEATURES

- *Max. throughput of up to 320 exposures/hour.*
- *Pilot panel scaling: Up to 10 pilot panels.*
- *Traceability: Flexible serialization. Various possibilities* to expose the serial number of the panel, or individual regions of the panel with ascending numbers. Even with several different sequences of numbers.*
- *Multispool: Handling spool data for several imaging systems.*
- *Order statistics.*
- *Registration accuracy peaking in ± 5 µm @ 3 Sigma** with patented corner registration.*
- *Line enlargement or thinning compensates for line thickness modifications due to downstream processes.*
- *„Step and Repeat": Partial registration up to 64 regions with all registration methods mentioned.*
- *Smart Service Concept.*

** Offers a wide range of customization options.*

*** Depending on method and registration mark quality and accuracy.*



- MultiScan technology (9 polygons, 288 diode lasers) for high-throughput/high accuracy exposures.
- Conductive pattern determined in real time for each exposure.
- Registration/alignment and scaling in real time.

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