



Tempo Presto LW

Tempo Presto Large Wafers is the current masterpiece platform offered for the metallization of solar cells. Compared to the legacy platforms (Tempo 2.x series), the main breakthrough is the replacement of rotary table with 2 independent shuttles driven by linear motors.

The main advantage of this new architecture is the highest compatibility with the different wafers format: the TP_LW can handle wafers from 156mm up to 230mm and the size swap in production is typically requesting only few hours of tool shutdown and the replacement of few HW components provided with specific kit (squeegees, flood bars, drier belts and nest).

The other major advantages are:

- Lighter structure (22kg vs 75kg of the previous rotary table)
- Higher velocity and shorter path, thus enabling the highest throughput of 8,000 wph on M6 wafer format
- Higher precision along the critical axis and no vibration, thus enabling a printing repeatability of $\pm 6 \mu\text{m}$
- Improved ergonomics: the distance between the operator and the screen center is now 415mm vs 745mm of the rotary table; besides, thanks to the rotated movement of squeegee and flood bar, now along the wafers transportation direction, the operator has more accessibility to the printing area and better process control.

Moving to the drying ovens, Applied Baccini offers in its portfolio three different solutions designed for each specific processes of PERC technology:

- The Standard Oven, for the Silver tabbing on Back1
- The XLC Oven for the Aluminum printing on Back2, characterized by optimized air flow - concurrent with the cells flow - and doubled exhaust extraction to manage the high solvent content introduced with the larger wafer formats
- The XLS dryer for the Silver printing on Front1, to achieve the higher temperatures requested for the Ag drying and enabling at the same time faster cooling at the exit

Optional post-printing the integration of the Automatic Optical Inspection, to provide a printing quality check and a close-loop-control on the alignment, as well as to identify the presence of defects/cracks of the cell.

Optional also the newest proprietary feature named ASC or Automatic Screen-Cleaning, automatically reproducing the manual cleaning procedure normally performed by operators.

Price on request



Tempo Presto PE

Tempo Presto for Printed Electronics is the latest screen-printer model launched by Applied Materials Baccini at the end of 2020. Derived as single lane platform of the mother platform Tempo Presto Large Wafers, launched in 2019 to accommodate the new solar wafer formats up to 230 mm, the TP_PE is the perfect solution for advanced screen-printing processes from pilot production up to high volume manufacturing. The platform is equipped with a proprietary alignment system that guarantees printing repeatability down to +/-6 um, that together with the double-step auto-offset, enables the highest printing precision and lowest dependency from operator. Optional post-printing the integration of the Automatic Optical Inspection, to check the printing quality and the presence of the defects. Optional also the newest proprietary feature named ASC or Automatic Screen-Cleaning, automatically reproducing the manual cleaning procedure normally performed by operators.

3D Semiautomatic Printer

The 3D semiautomatic screen-printer is the latest laboratory platform developed by Applied Materials Baccini in order to satisfy the market request for a lab tool to realize wrapped-around electrodes, otherwise named as side wiring. The tool is equipped with 4 high-resolutions cameras that, together with the Applied proprietary alignment algorithms, enable alignment repeatability down to +/- 5 um. A customized holder for vertical substrates is also provided together with the tool to enable the side printing, thus creating a conductive pattern between the front and the back of the substrate, going through the edge, mainly used for the ultimate micro-LED applications.

Price on request



Semiautomatic Printer

The Semiautomatic Printer is the masterpiece platform offered for R&D applications and pilot productions.

Characterized by a compact structure of 1.2 x 1.8 meters, the tool provides frontal manual loading/unloading of the substrates; all the remaining operations are automatic and normally only a couple of minutes are required for the full printing process set-up.

The standard maximum substrates size and printing area is 210x210mm, but can be increased orthogonally to the printing direction up to 300 mm.

The tool is equipped with 4 high-resolution cameras that, together with the Applied proprietary alignment algorithms, enable alignment repeatability down to $\pm 5 \mu\text{m}$.

Price on request