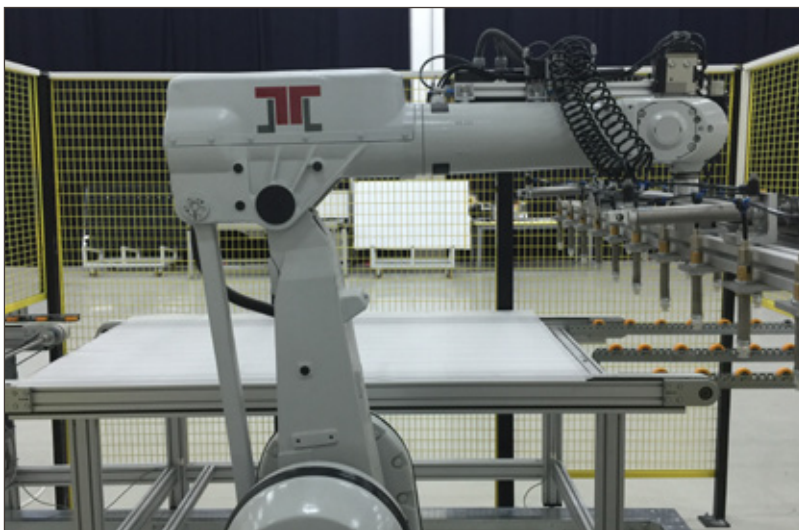
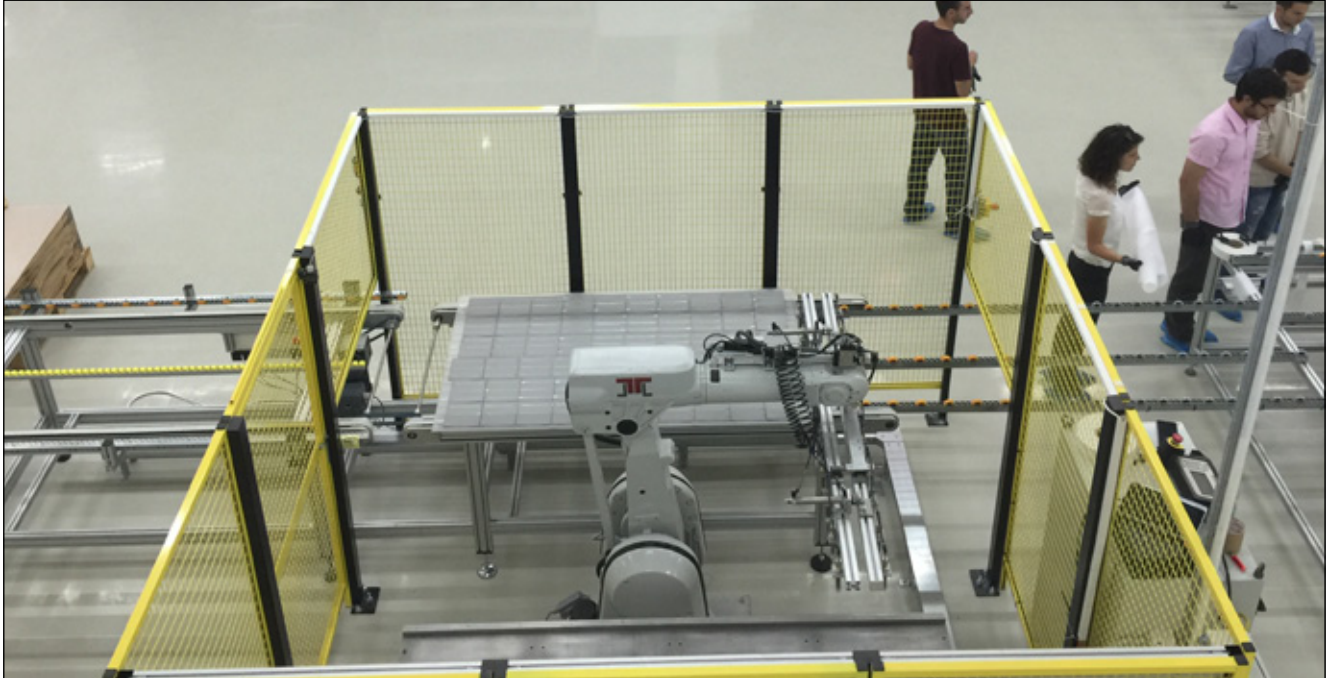


J.v.G. Automatic Robot-LayUp 2020



Robot LayUp



robot types different

The highlights

- for modules from 1.000 x 500 mm to 2.000 x 1.000 mm optional bigger sizes possible; please ask for your needs
- compact station with integrated 6-axis robot
- robust process for continuously high quality
- mechanical alignment / option vision system alignment
- direct load from stringer or load from string-box
- with active and passive conveyors for transfer of modules and glass

System description

The robot is mounted on the ceiling of a portal. It takes the strings from a string box or directly from a stringer. The robot places the string in the alignment station. Then the robot takes the string again and measures its longitudinal position using a photo sensor. The robot then places the double string on the panel, rotating every 2. string by 180°, to get + and - layup scene. String is aligned on two sides; with accuracy of better 0,1 mm.

Flexible layout

In the standard version the glass is supplied Short Edge Leading (SEL) from the side and leaves the machine at a 90° angle (Long Edge Leading, LEL). Optionally, the glass goes through the LayUp station and leaves Short Edge Leading (SEL) on the opposite side. Any other solution is possible; but must be fixed before start of building the layup.

Technical data

- improves placement by automated string alignment; $\pm 0,1$ mm
- soft touch on cells, by special vacuum grippers and control; breakage below 0,1 %, cell thickness 0,25 mm down to 120 microns.
- 5 inch 6 inch and 8 inch cell design; mono, multi; pseudo square and real square; 3 busbars; 2 module; front and rear side.
- programable module design(cells per strings etc.)
- up to 120 MW capacity
- option: camera system (cell breakage)
- option: automated busing and ribbon bending
- 400 V / 50 Hz; 6 bar pneumatic
- 450 kg (without options)
- 2,5 m x 2 m x 3,5 m (without options)
- PLC controlled; robot controlled
- real time assistance by INTERNET or/and ETHERNET port RJ45
- maximum standard module size; 2 x 1,5 m options bigger sizes; e.g. 3 x 4 m
- 4 mm glass; 3,6 mm glass; 3,2 mm glass down to 2 mm glass; option 1,4 mm glass

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