



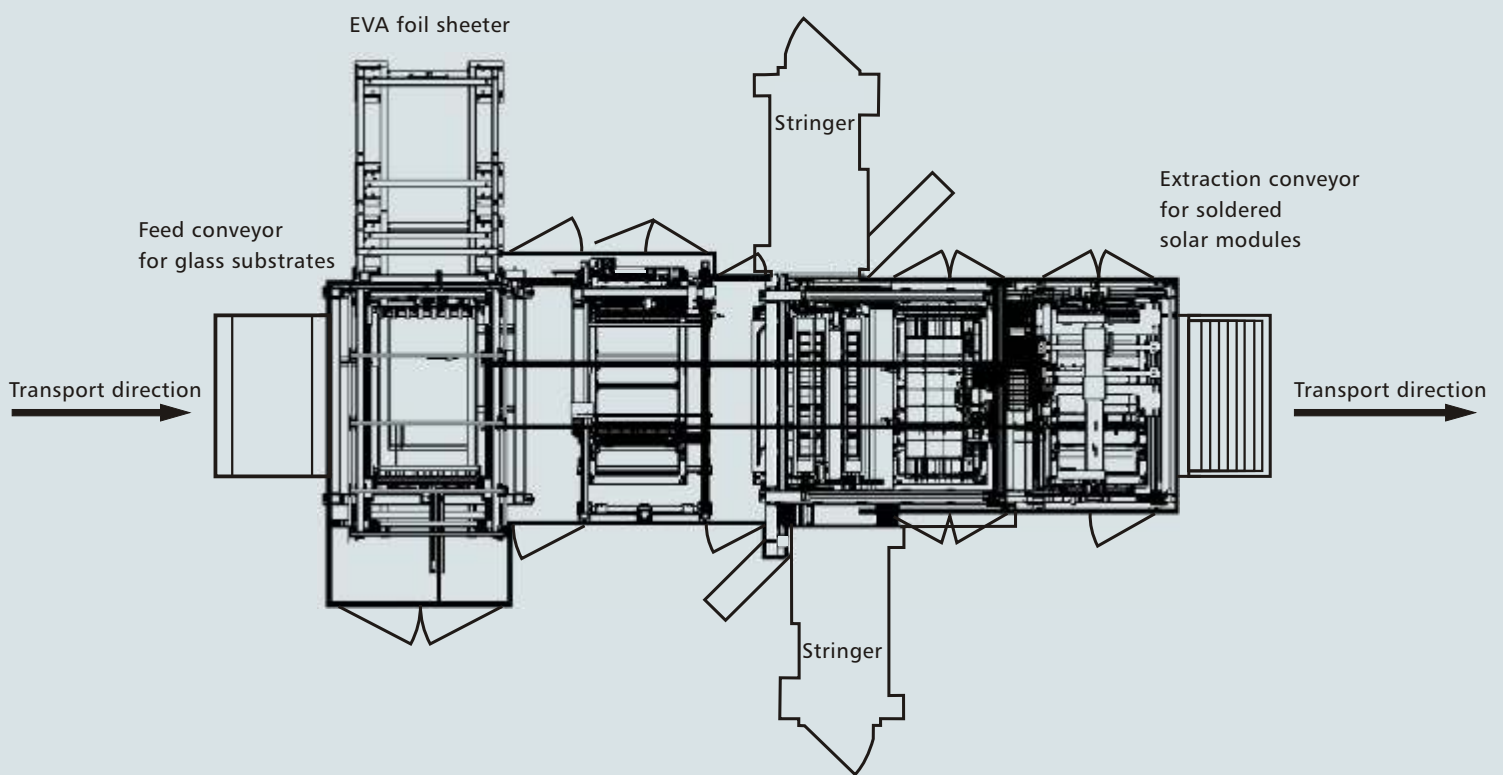
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LAYUP 2000



Solar module production — We have the solution.

LAYUP2000



STATION 1	STATION 2	STATION 3	STATION 4	STATION 5
Glass substrate feed Alignment EVA foil application	Set up and application of cross connection	String preparation String inspection	String application	Soldering / extraction

The Layup plant features:

- Feed conveyor for cleaned glass substrates
- EVA foil sheeter combines with lifting and aligning unit
- Cross connection set-up
- Direct integration of stringer
- Automatic fluxing
- Automatic lateral soldering



Feed conveyor for cleaned glass



EVA foil sheeter combined with alignment unit



Direct string integration (string application)



Cross connection set-up



Automatic fluxing



Automatic lateral soldering



LAYUP 2000

BASIC TECHNICAL DATA of the layup plant

Dimensions of the plant Length 13 m, one layup, feed and unload conveyor
 Width 9 m / string supply

Feeder/extractor

Operational height 1000 mm
Manufacture BOSCH

Control SIEMENS S7-300
Operating console SIEMENS Mobile Panel
Control voltage 24 V DC
Mains voltage from 400 V AC, 3 phase, N, 50/60 Hz
Pneumatic valves 24 V DC
Output 45 kVA
Compressed air 6 bar
Interfaces Plug-in process field bus/Ethernet,
 Emergency On-Off button/protective doors

Layup cycle time 20-30 modules per hour (module dependent)
Technical availability $\geq 95\%$
String inspection Image processing by tolerance limit sample
Stringer Direct integration of 1 or 2 stringers
EVA foil application Direct integration of foil application

Workpiece details

Solar module dimensions 800 x 1345 mm to 1000 x 2000 mm
Solar cell dimensions 100 to 210 (poly/mono)
Cell thickness from 160 μm
Strings with 2 or 3 busbars
Cross connection Copper, lead-free tin plated

