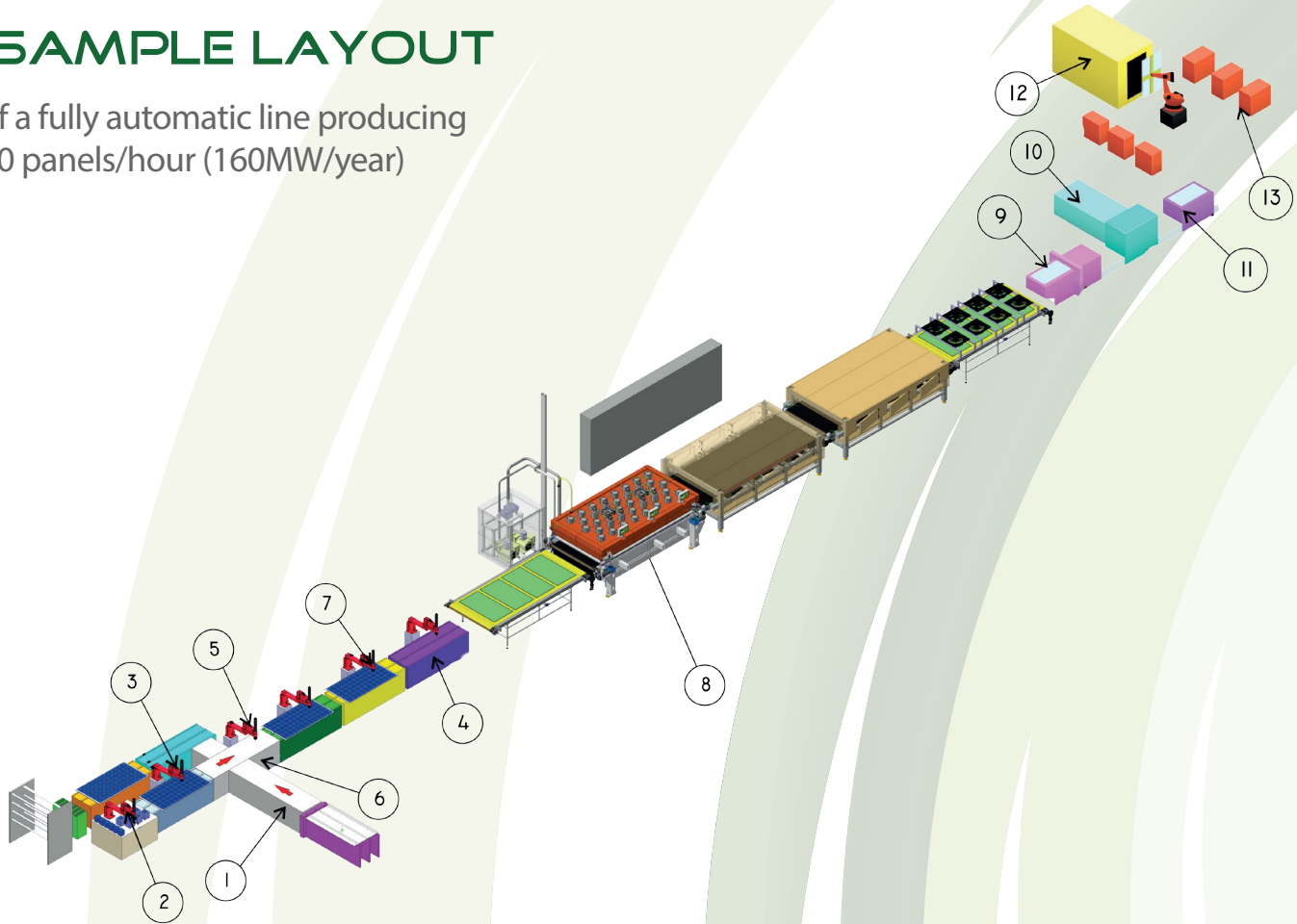


# SAMPLE LAYOUT

of a fully automatic line producing  
60 panels/hour (160MW/year)



N° Equipment	Equipment description	Technical data
1. Glass loader	Automatic glass loader and dry powder removal system	Up to 60 glass panels/hour Rotating brushes and vacuum cleaner
2. Cell sun simulator	Cell sun simulator and sorter	Up to 4500 cells/hour
3. Multi-stringer	Automatic Stringer machine	Up to 4500 cells/hour
4. Scanning camera	Scanning camera to automatically inspect string integrity and dispose the defective ones	Up to 360 strings/hour
5. Lay up system	Automatic strings lay-up system	Up to 360 strings of 12 cells each/hour
6. Bus-bars cutting machine	Bus-bars cutting and welding system	Up to 60 panels/hour
7. EVA and B.S. cutting machine	Automatic cutting of EVA and Back Sheet foils from rolls - Automatic positioning of EVA and B.S. on the panel with SCARA robots.	Up to 60 panels/hour
8. Robostak GEN. V laminating line	Robostak membrane-less laminator and curing section with automatic loading and unloading conveyor with forced air cooling system	60 panels/hour Max capacity 160MW/year
9. Trimming machine	Automatic edge trimming machine for EVA and B.S.	4 independent carriages with blades - 60 panels/hour
10. Frame assembling system	Automatic aluminium frame assembling with in line automatic silicone glue or bi-adhesive tape applicator	60 panels/hour
11. Junction box station	Junction box application automatic with SCARA robot station	60 panels/hour
12. Solar simulator	Robotized cell for solar simulation and panel labelling	60 panels/hour
13. Panel sorting and packing system	Panel sorting and packaging station with robot	60 panels/hour