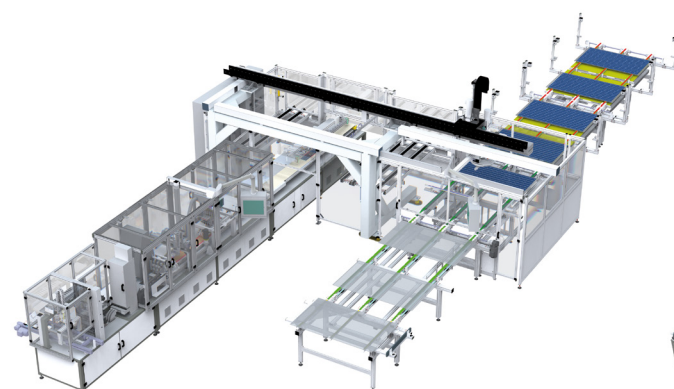
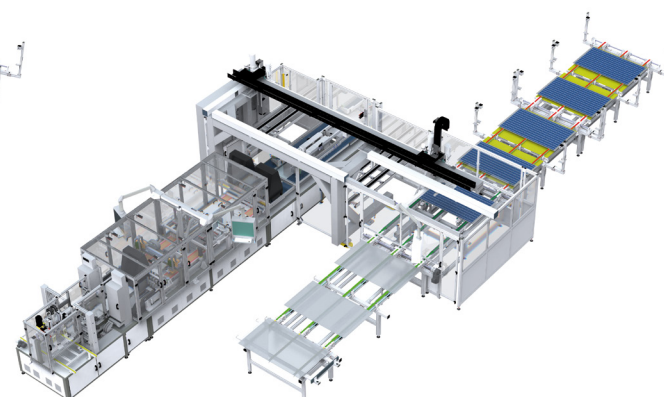


RAPID ONE
600 cells/h



RAPID TWO
1200 cells/h



SOMONT RAPID Stringer

RAPID connects your cells

Technical specifications RAPID

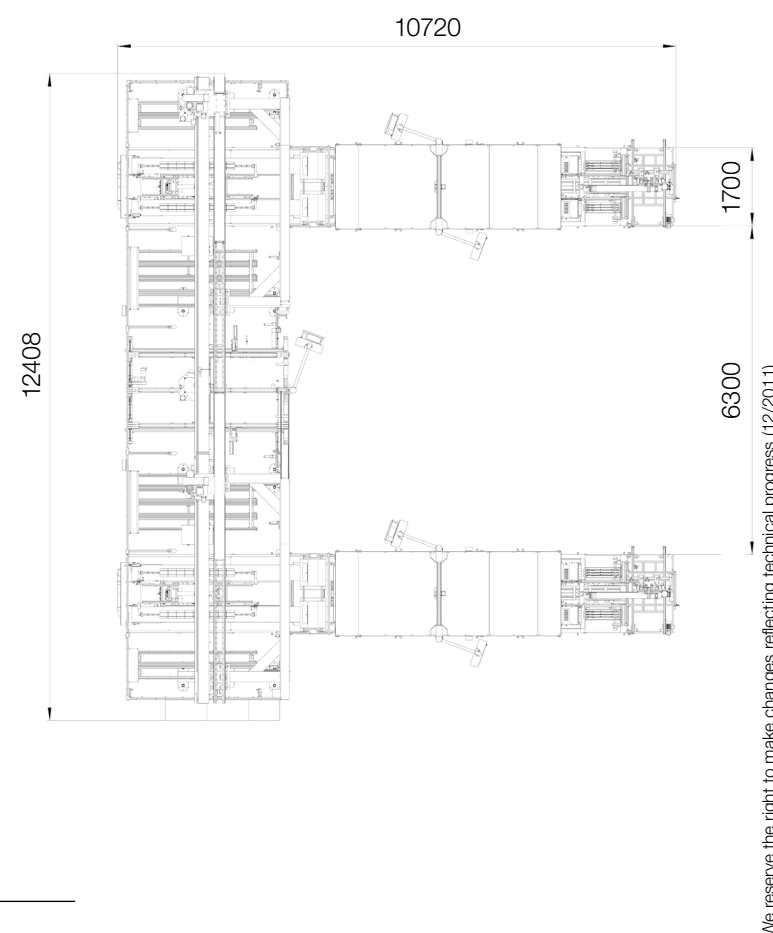
- RAPID FOUR:
2 x (10720 x 1700 x 2250 mm)
- Weight RAPID FOUR: 2 x 5550 kg
- Max. string length: 2000 mm
- Min. / Max. cell gap: 1.5 mm / 40 mm,
freely programmable

Factory environment

- Floor load: 1000 kg/m²
- Min. floor thickness: 200 mm
- Factory temperature:
Min. 5 °C / Max. 45 °C
- Factory humidity: < 80%
- Required connections –
electricity, compressed air, exhaust
and an Internet connection

Cell details

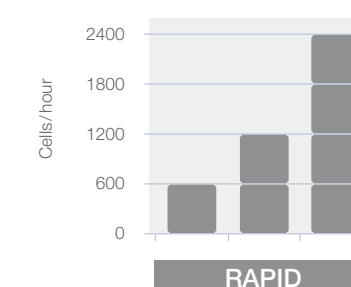
- Cells Si Mono- or polycrystalline,
square or semi square
- Cell dimensions:
from 5", 6" and 8", 2 and 3BB
- Min. cell thickness: 160 µ



Outstanding worldwide reputation for reliable cell connection

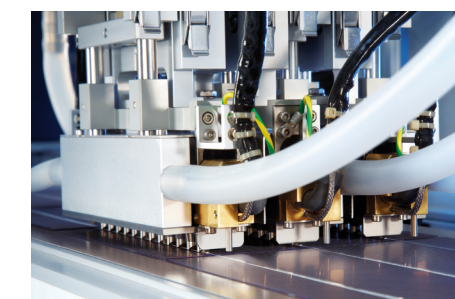
- High outputs from 600 – 2400 cells/h
- Low breakage rates
< 0,2%*
- Stringer availability of > 95%
 - High productivity and reliability due to industry proven components
 - Fast reaction time due to remote access
- Very modular and flexible concept
 - Easy and fast integration into new and existing module lines
 - Flexible for 5", 6", 8" cells – 2 and 3BB, lead or lead-free**

Capacities



Highest quality due to innovative key features

- Reliable high quality soldering results
 - Excellent peeling forces and reproducible high-quality soldering results due to optimal temperature management and Somont's Soft Touch Soldering
- Constant process stability and quality control
 - Early and fast detection of cell defects and precise alignment with optical vision
 - Avoids production downtime and leads to increased productivity
- Increase in uptime and flexibility
 - Fast product change due to smart machine concept
 - High flexibility in relation to different cell and ribbon types

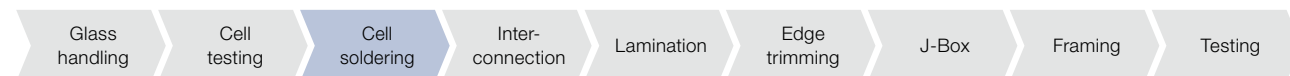


User and maintenance friendly

- Fast installation and ramp-up times
due to sophisticated machine design
- Short set-up times: from 2 and 3BB < 45 min
- Perfect accessibility to all stations

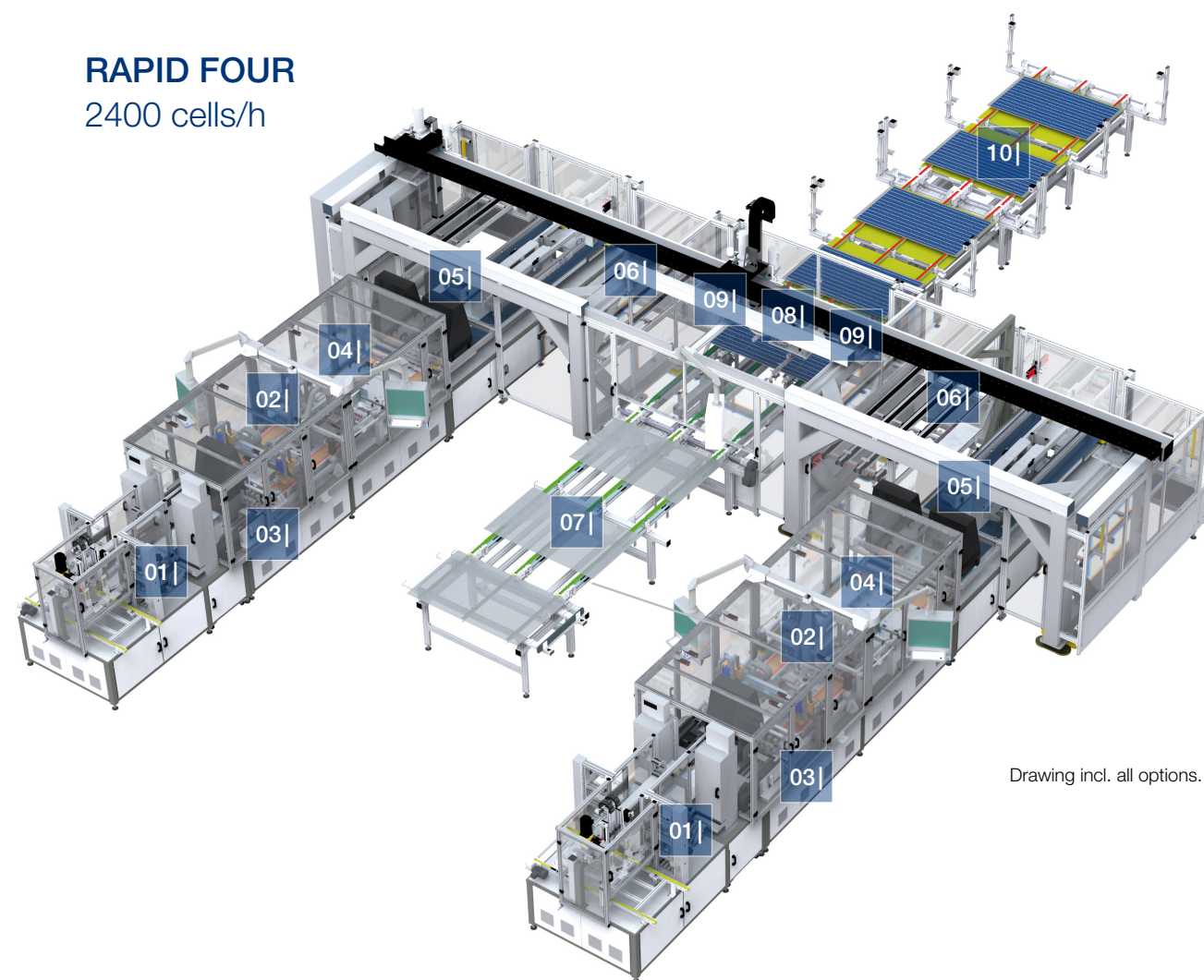
* with 180 µ 6" cells, pre-sorted, based on 10 cells/string

** material testing is necessary in advance



Steps to produce a String

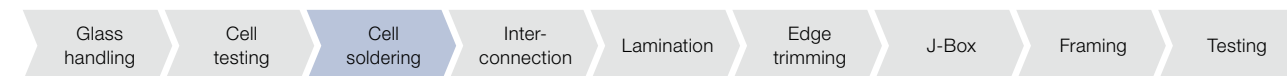
RAPID FOUR
2400 cells/h



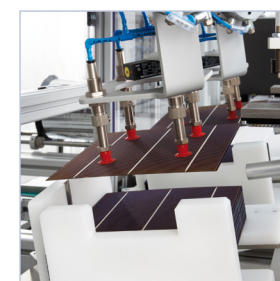
Drawing incl. all options.

RAPID Optional Equipment

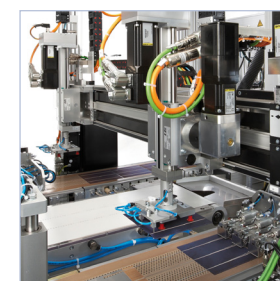
- Lay-up systems (for string placement on glass plate or into boxes)
- String Flasher
- String Tester
- Glass plate feeding conveyor
- Ribbon cutting and bending unit (for automated interconnection)
- Manual working stations for further processing of the module
- Accessories: Special tool set and string transport boxes



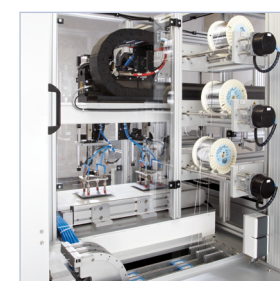
Steps to produce strings



01 | Cell loading station
The cells are carefully taken out of the magazine and are placed on a conveyor belt.



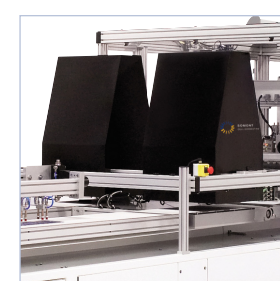
02 | Cell alignment
The first vision system checks the cells for cracks and breakage. Then the data is used to align the cells on the soldering belt via cell-transfer system.



03 | Ribbon handling
The ribbon is uncoiled and conveyed to the flux station. After fluxing, the ribbon is dried and prepared to the required length.

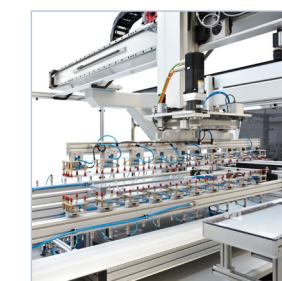


04 | Soldering Station
Ribbons and cells meet on the soldering belt where a combination of accurate temperature management and Somont's Soft Touch Soldering Process produces a perfect and repeatable soldered joint.

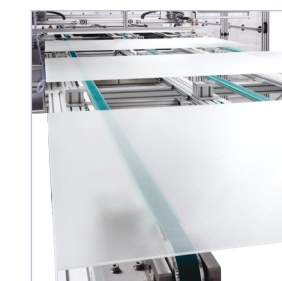


05 | String check
After soldering the strings run through a second vision system in order to inspect the alignment of the cells with the ribbon as well as a breakage check.

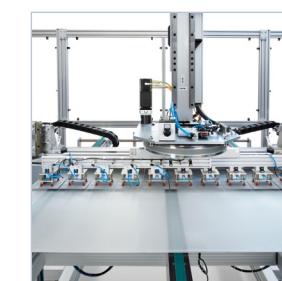
Options



06 | Lay-up
After the turning units of both stringers have turned the strings sunny side down the lay-up arm pick up the strings and transport them gently to the glass plate.



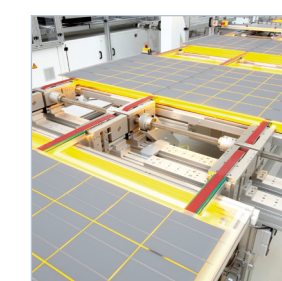
07 | Glass plate feeding
Glass plates are loaded on the belt and are forwarded to the lay-up station.



08 | String placement station (part of the lay-up)
Once the glass plate is automatically aligned, the strings are placed precisely on the EVA glass plate sandwich.



09 | Ribbon cutting and bending
In order to prepare the strings for an automatic interconnection.



10 | Manual working stations
For manual interconnection and preparation of the modules before lamination.