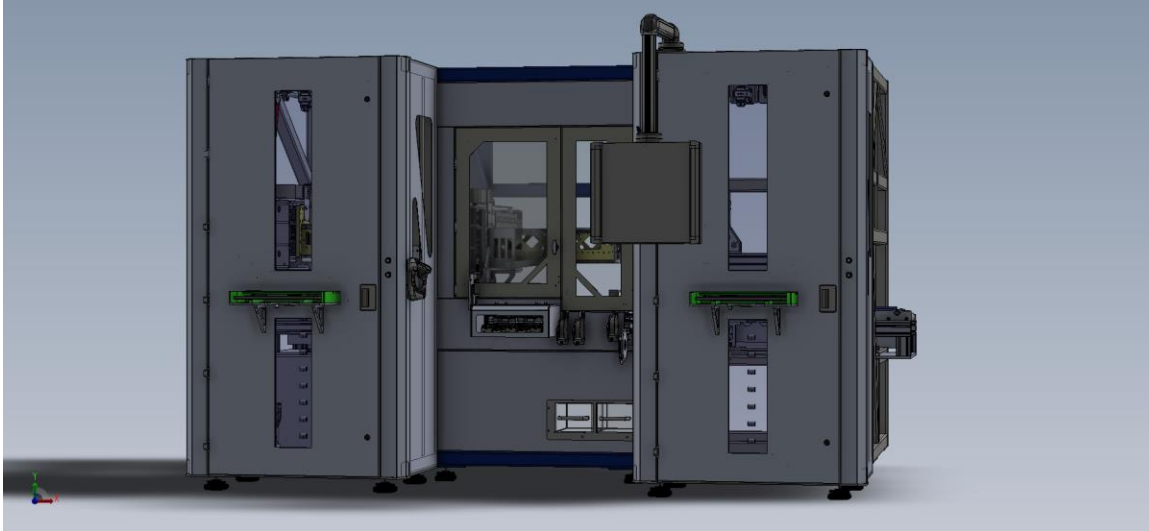


# APM1000-MK1

## Automated IGBT Assembly Equipment to bond DBCs on a Base Plate

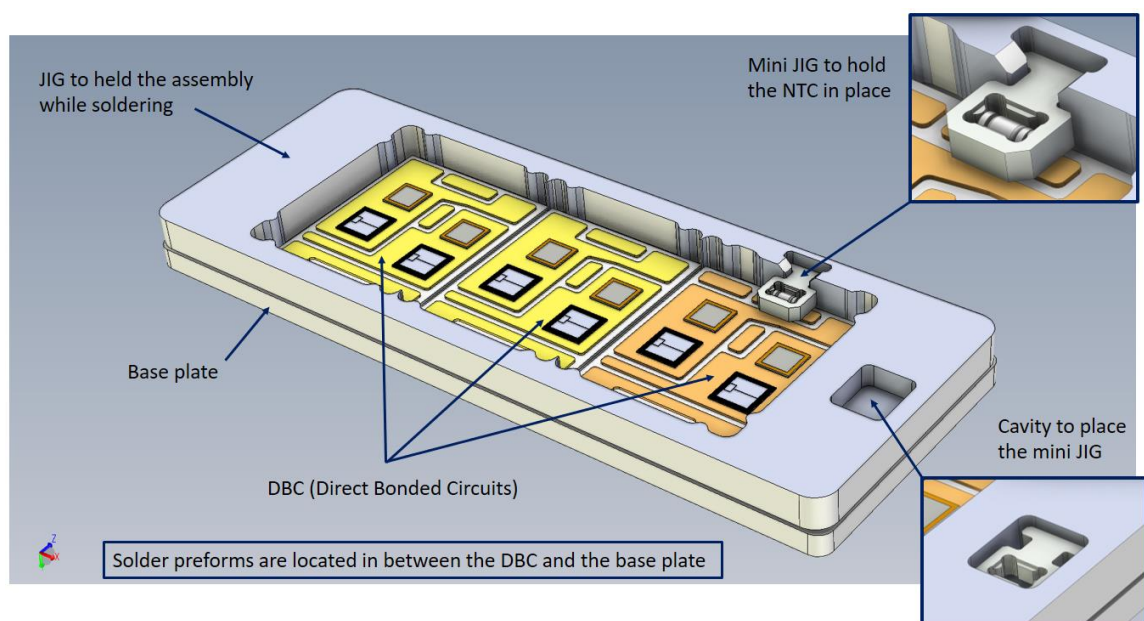


*APM1000-MK1: ROBUST, FAST, FLEXIBLE, and PRECISE*

APM1000-MK1 is a full automatic assembly equipment specifically designed for the power electronics manufacturing industry.

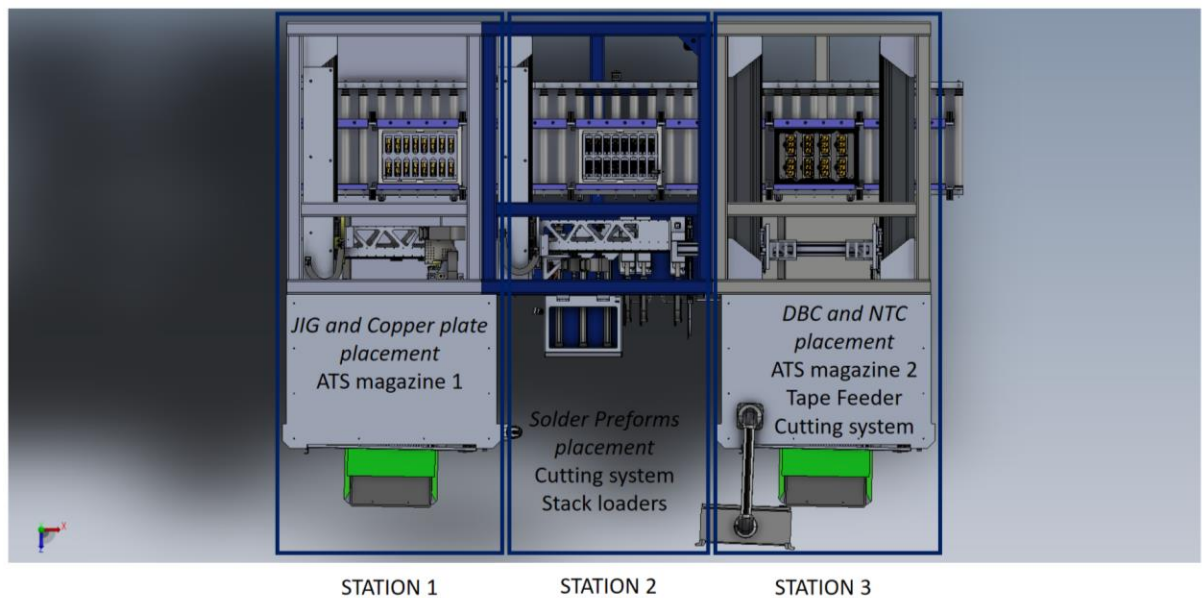
The machine ensures the following assembly operations:

- Base plate Pick and Place
- JIG Pick and Place
- Solder Preforms cutting and placement from a solder ribbon
- DBC Pick and Place
- NTC thermistor Pick and Place



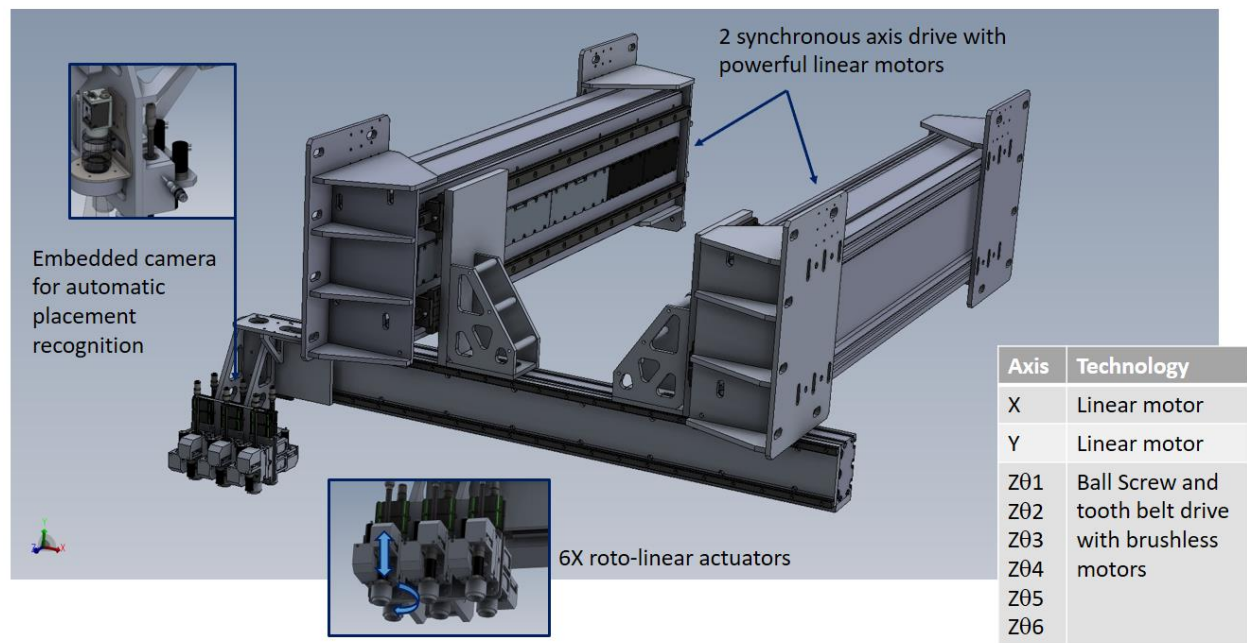
*Components assembly ready to be soldered in the next process step*

Once the assembly operations are completed by the APM1000-MK1, the internal conveyor carries the products to the oven to proceed with the soldering process.  
The APM1000-MK1 can be installed in line with an oven. The adjustable conveyor can fit any kind of tray's dimensions from 50mm to 450mm width depending on the soldering oven specifications.



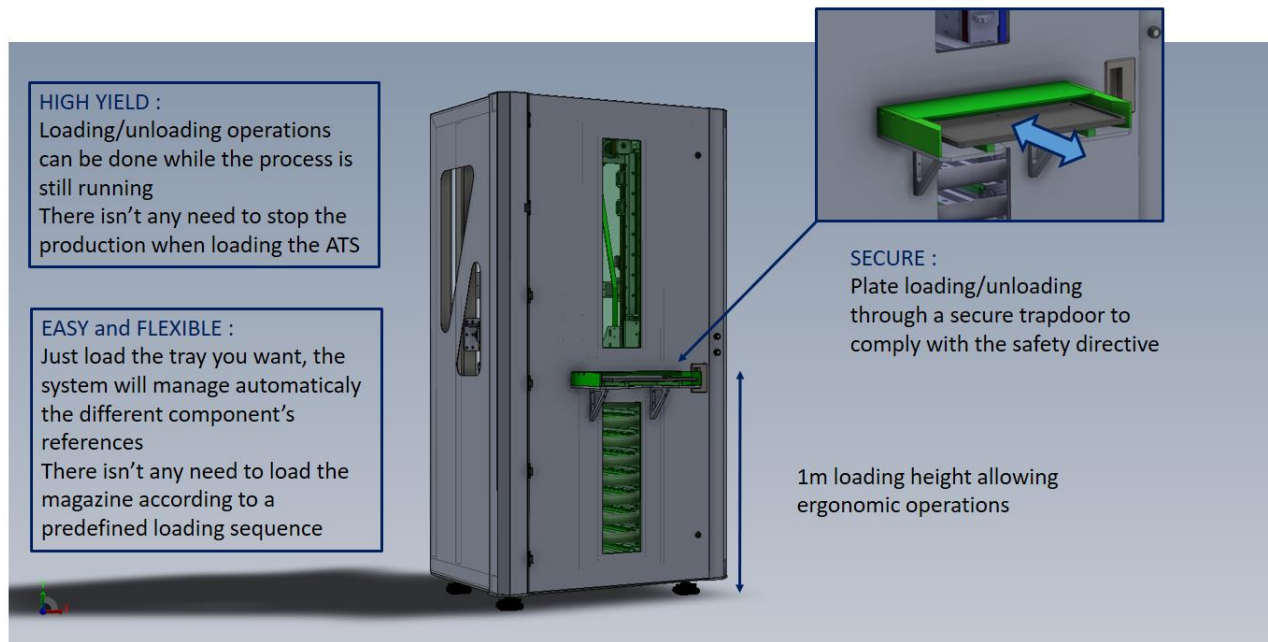
APM1000-MK1 Top View

Each of the 3 working station integrates leading edge Cartesian robots designed for high speed movements and high precision placements.



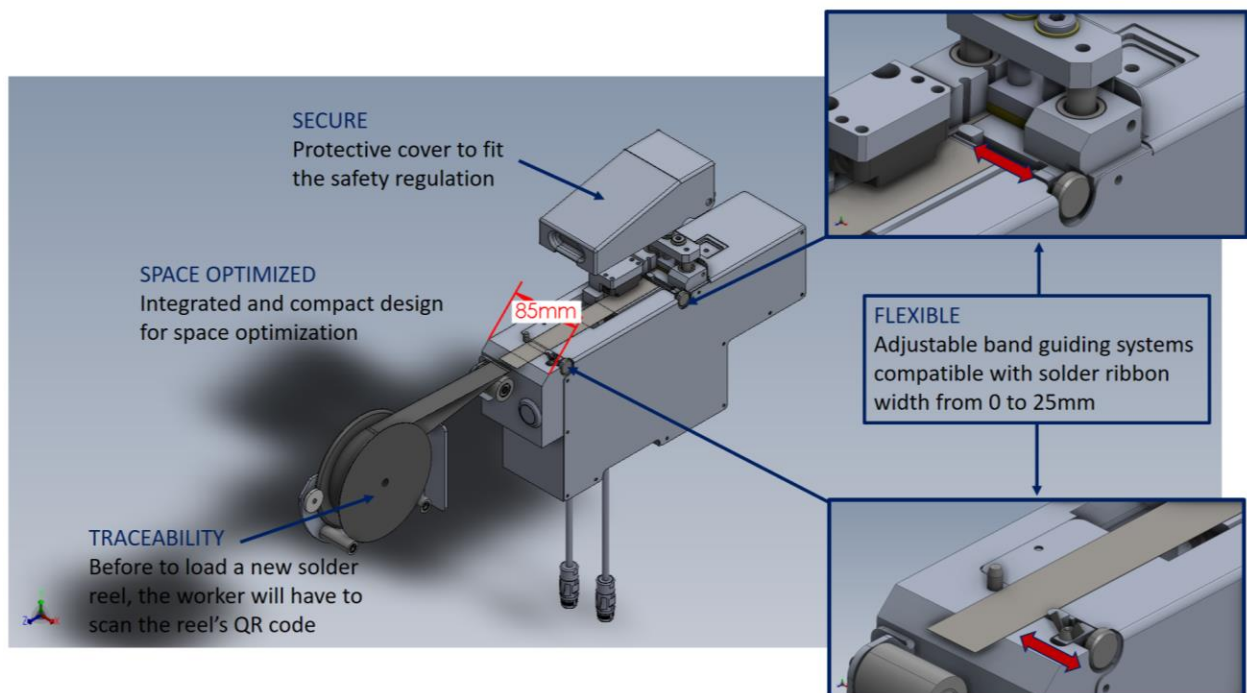
Cartesian Robot

Two ATS magazines are located at the front of the APM1000-MK1 to store the copper plates, the JIGs, as well as the DBCs.



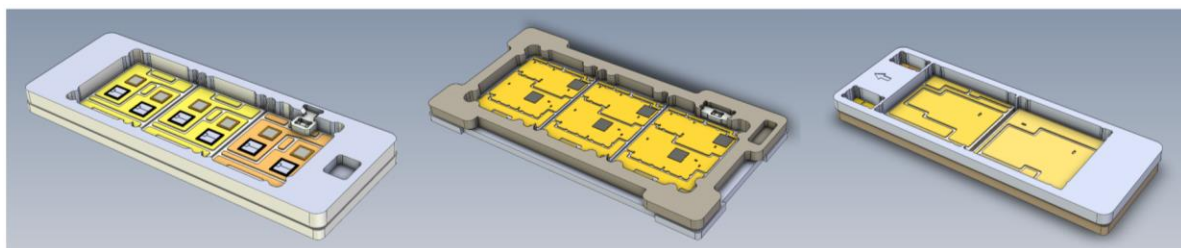
### *ATS magazine*

Solder ribbon, pre-cutted preforms and small components can be loaded in feeders or stack loaders located underneath the main front doors.



### *Solder preforms cutting system*

The advanced control software is able to configure new product references in just a few steps and can be connected to your Fab through the SECS/GEM interface protocol.



*APM1000-MK1 is compatible with different kind of Power Module configurations*

## Technical Data

Machine Length	3600mm
Machine Height	2250mm
Machine Depth	2360mm
Adjustable foot	+/-50mm
2 ATS Magazines	2X10 Trays (450X430mm)
3 solder preforms cutting systems	Solder ribbon width up to 25mm
3 solder preforms stack loaders	3X400 preforms from 20X20 to 65X65mm
1 Tape Feeder	3X8mm
Adjustable conveyor	For carrier from 50 to 450mm width
Robot 1	XYZ0
Robot 2	XYZ01 Z02 Z03 Z04
Robot 3	XYZ01 Z02 Z03 Z04 Z05 Z06
Traceability and interface protocol	SECS/GEM