

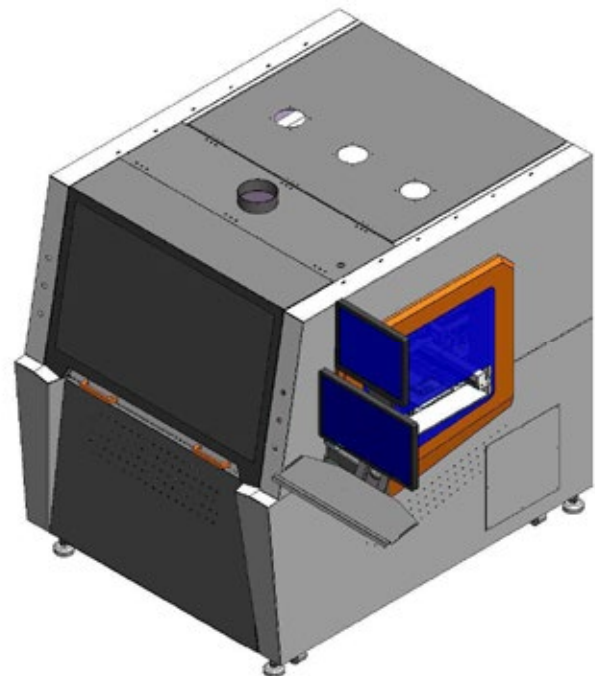
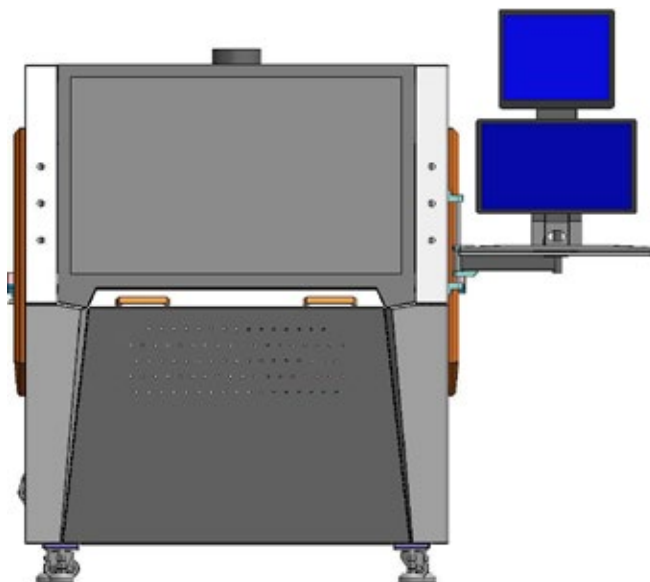
FLEX-I2 COMPACT INLINE HYBRID SELECTIVE SOLDERING MACHINE

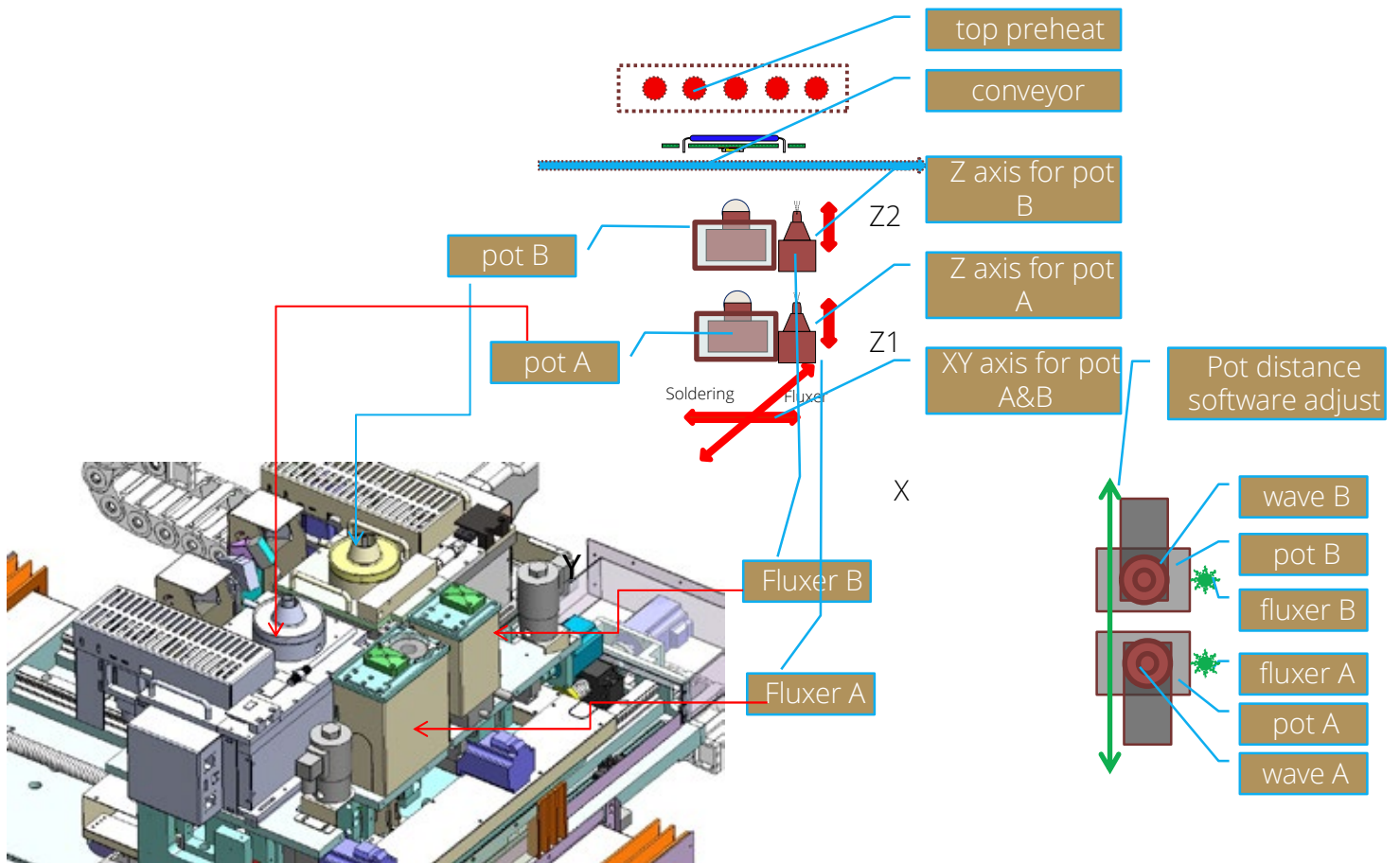
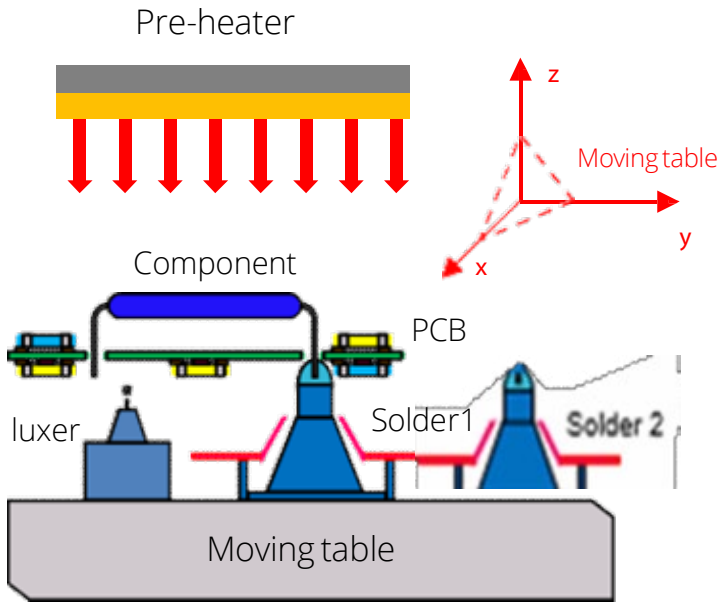


Features

Flex-i2 is the new generation selective with below feature:

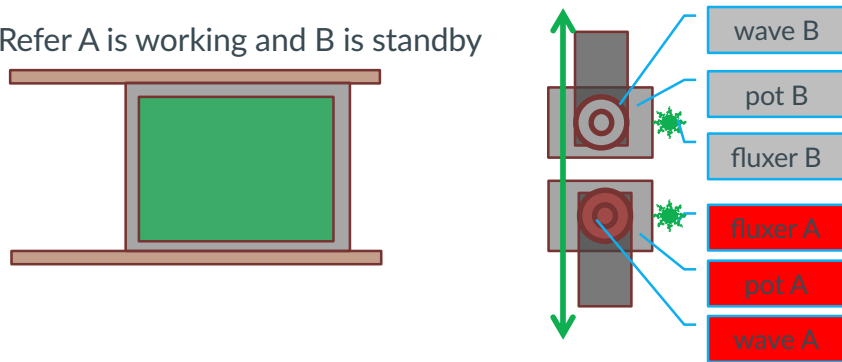
- XY servo table for solder station, servo axis Z1 for solder pot 1, servo axis Z2 for solder pot 2. Optional with electro-magnetic pump made in Germany.
- Standard equipped with one drop jet fluxer. It's in same XYZ table with solder pot. Optional for 2nd drop jet fluxer.
- Top & bottom IR preheating zone.
- Standard equipped live-on camera for both solder pot's soldering process.
- Standard equipped with wave height calibration.
- Windows 10 system English version.





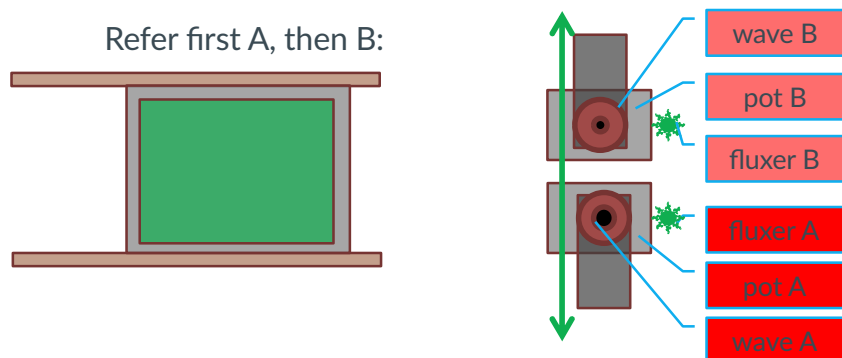
| Flux | | Solder | | Application explanation | Max PCB |
|---------------|---------------|---------------|---------------|--|-----------------------|
| Fluxer A | Fluxer B | Wave A | Wave B | | |
| Work | Stop or spare | Work | Stop or spare | Use only one fluxer and one solder pot. Another fluxer and solder pot stop or standby. Another fluxer can equip another flux, another solder pot can fill different solder. To to meet quick change production line | W450mm x L508mm |
| Work | Stop or spare | Stop or spare | Work | | |
| Stop or spare | Work | Work | Stop or spare | | |
| Stop or spare | Work | Stop or spare | Work | | |

Refer A is working and B is standby



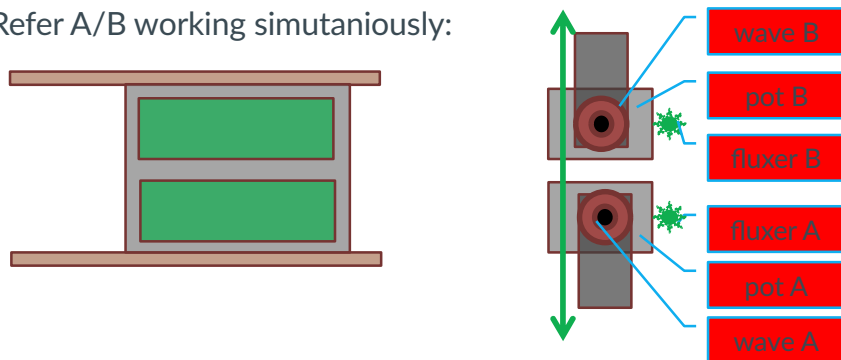
| Flux | | Solder | | Application explanation | Max PCB |
|----------|----------|----------------------------|----------------------------|--|-----------------------|
| Fluxer A | Fluxer B | Wave A | Wave B | | |
| Work | Work | Working with type 1 nozzle | Working with type 2 nozzle | Use two different solder nozzle in two pot. Big nozzle to solder big connectors, after that small nozzle to solder small clearance components | W450mm x L508mm |

Refer first A, then B:



| Flux | | Solder | | Application explanation | Max PCB |
|----------|----------|----------------------------|----------------------------|---|-----------------------|
| Fluxer A | Fluxer B | Wave A | Wave B | | |
| Work | Work | Working with type 1 nozzle | Working with type 1 nozzle | Feed two same board on pallet to machine, two drop jet fluxer will flux to board at same time. Then solder two same board paralley, double the production | W235mm x L508mm |

Refer A/B working simutaniously:

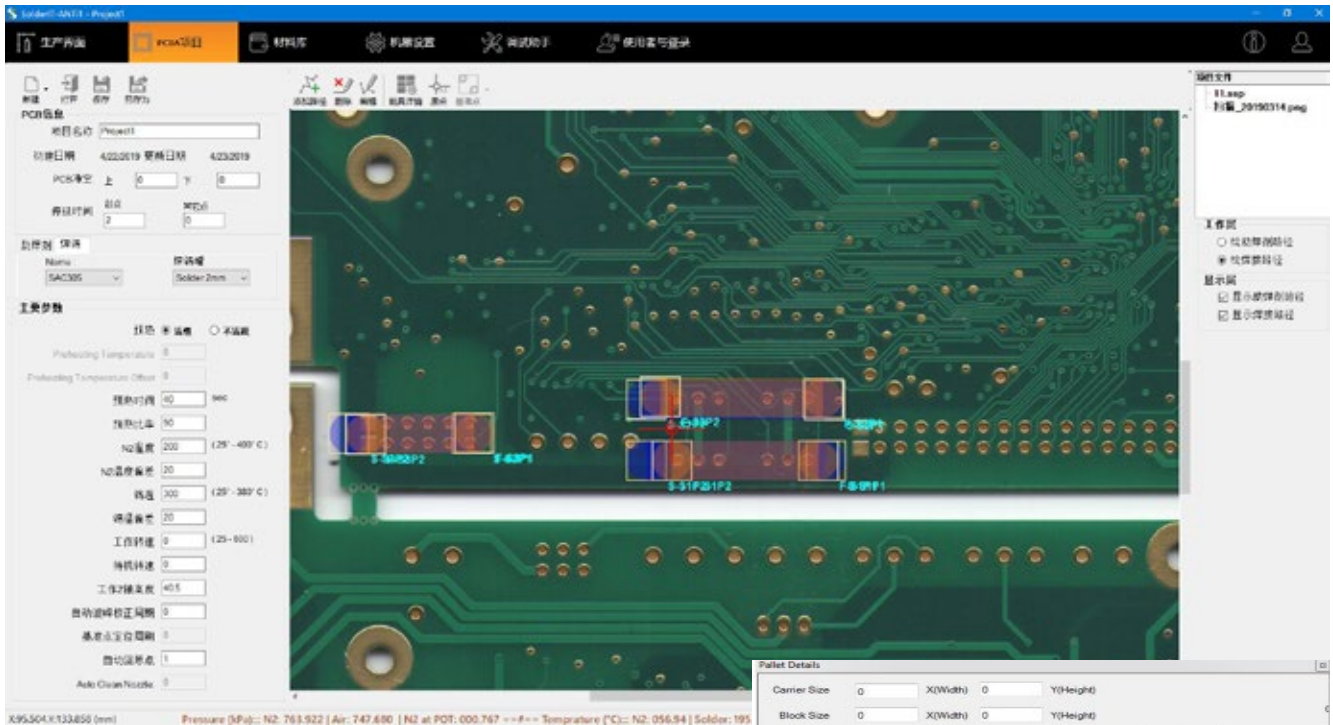


| Factory Status | Machine application | Advantagous |
|--|--|--|
| Small volume, many different board. Two different flux, two different solder | Each drop jet flux with one tank, each tank with one kind of flux. Each solder pot with one solder. | When change process from board A to board B, no need spend time to load different flux and different solder, easy to exchange process in 10 min. |
| Middle volume, high mixed components(big different heat absorbing charactor) | Use bigger soldre nozzle to solder big coomponents, grounded point, heat sink etc. | Tailor-made process, easy to get good soldering quality and volume. |
| Higher volume (may use two set of Flex-i2 or one MAS-i2 plus one Flex-i2) | Use same solder nozzle to solder two same board together. | Double the production |

Software System

Solder It

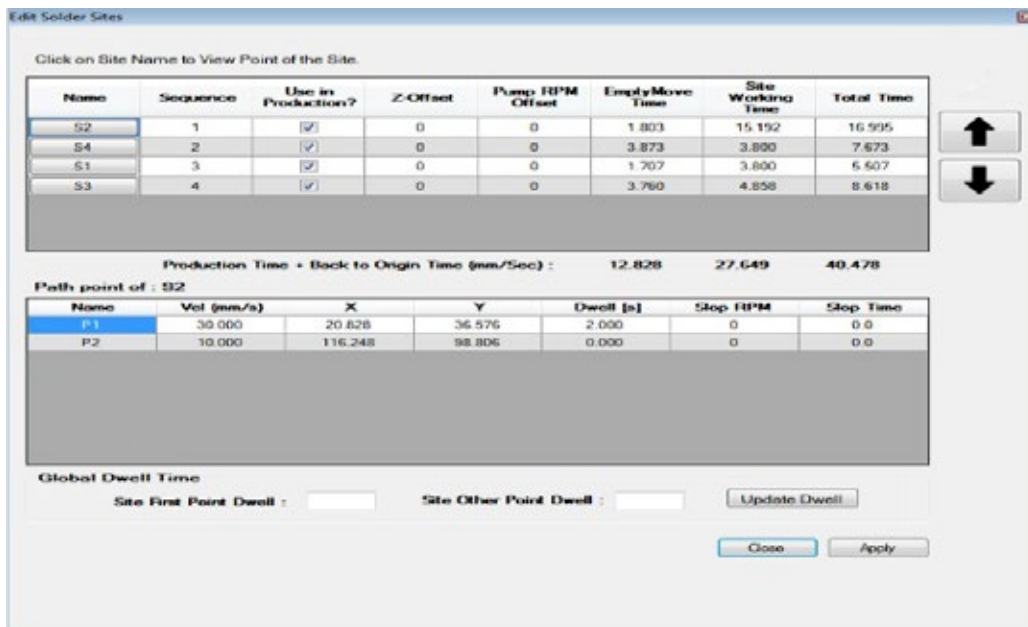
“Solder It” is a Windows Prof essional 10 based software designed to create a solder program for each single solder point. It’s easy POINT AND CLICK tool ensures that a repeatable solder program is done within minutes.



Pallet Details

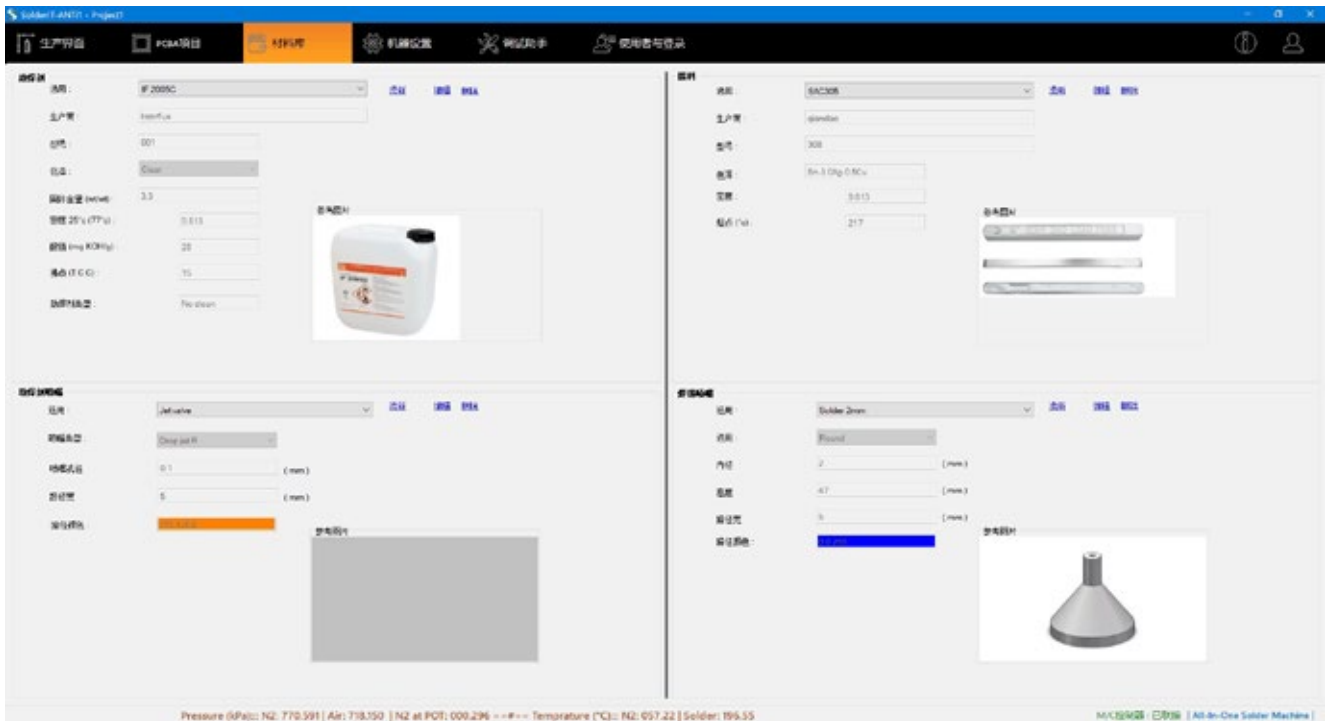
Program one board, array them in X,Y with setting pitch, and it can select which one working or not.

All motion path can be editable, include soldering speed, empty move speed, dwell time, solder Z height, wave height, wave slop speed etc.

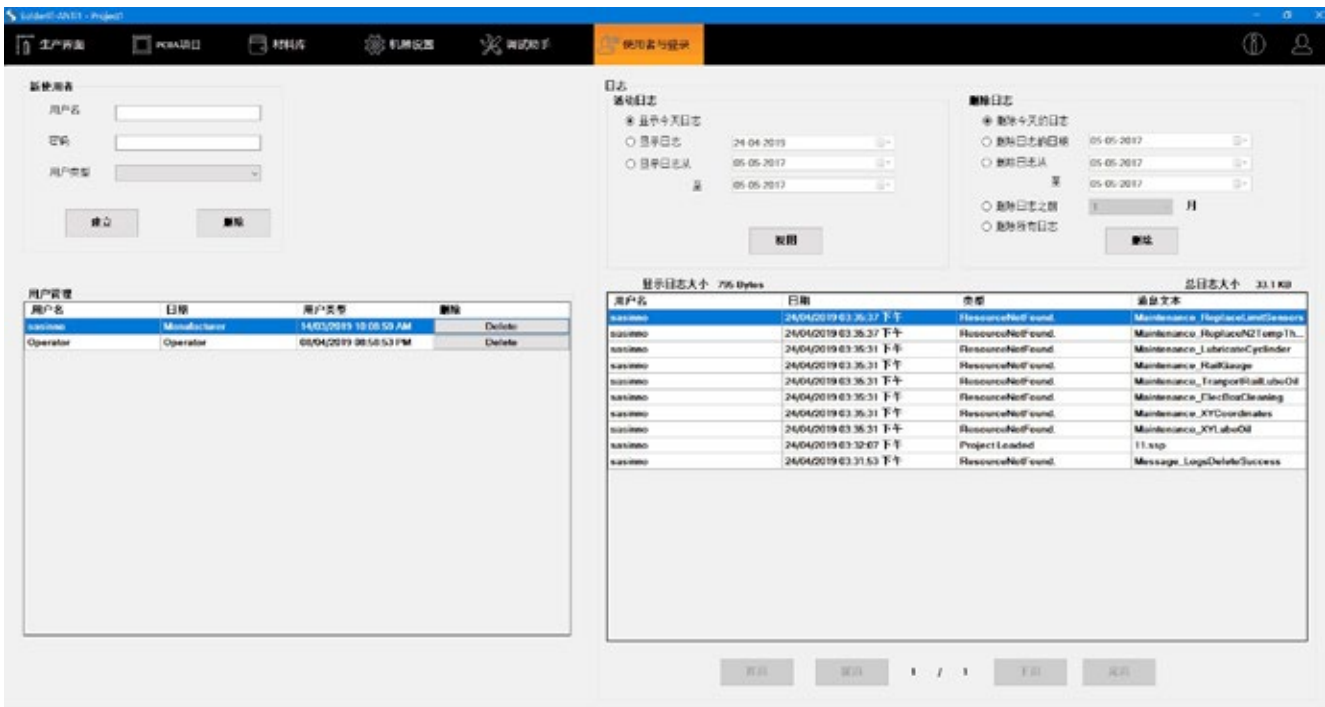


Date base information

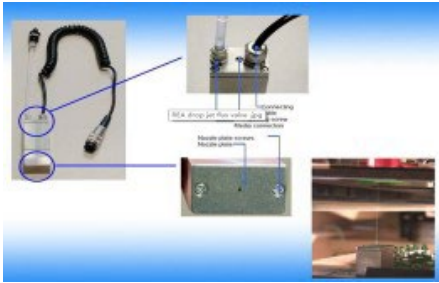
Engineer can input all solder, flux, solder nozzle information to machine. When doing programming, they can add the se information to programming of board. In future to produce the same board, it will be easy to get not only motion information, but also what flux/solder/nozzle was used before, easy to repeat soldering quality.



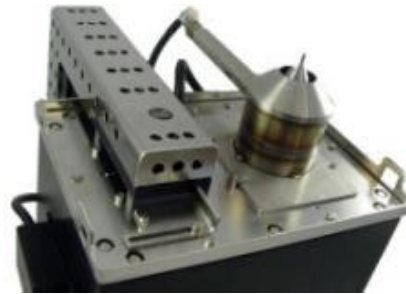
3 Level logging rights and date log information records. Who use machine, when use machine, what unnormal happen on machine, all these will be recorded.



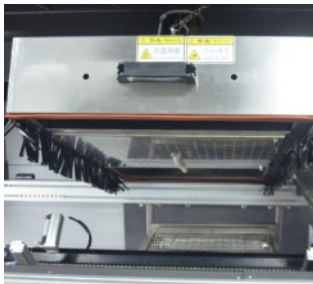
Hardware



Drop jet fluxer
Drop jet flux made in Germany



Mechanical pump
Mechanical solder pot with Ti tank.



Preheating zone
Standare with top and bottom IR preheating zone.

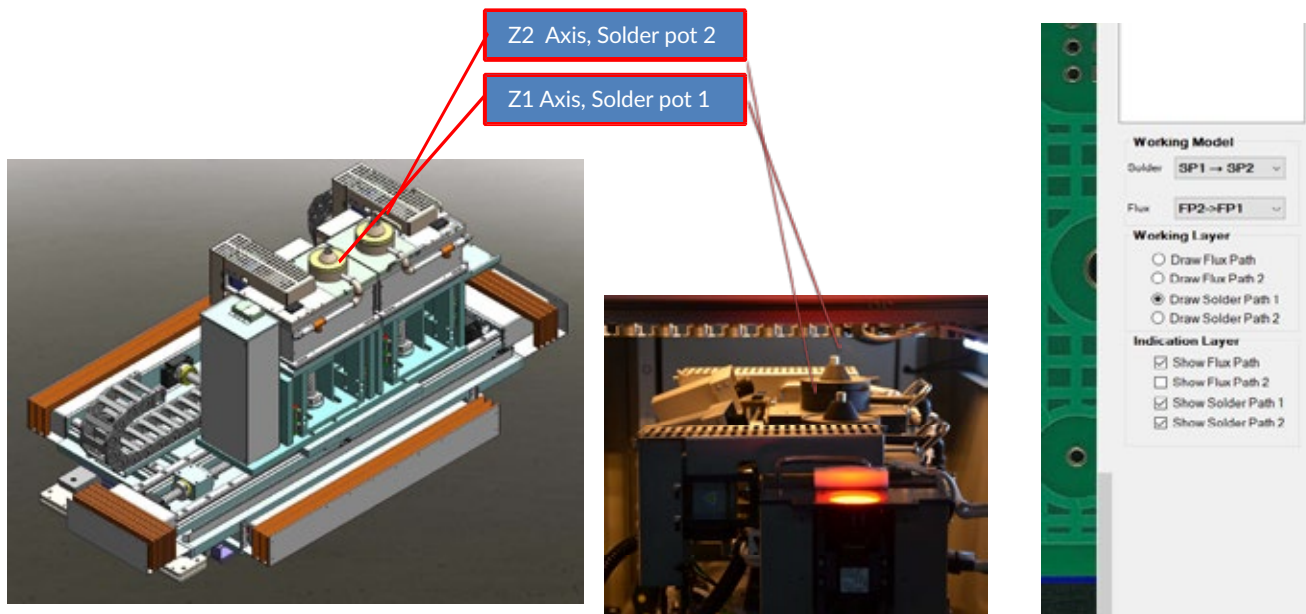


Dia 3MM, 4MM, 5MM, 6MM, 8MM
as standard. Customized nozzle available.

Motion table

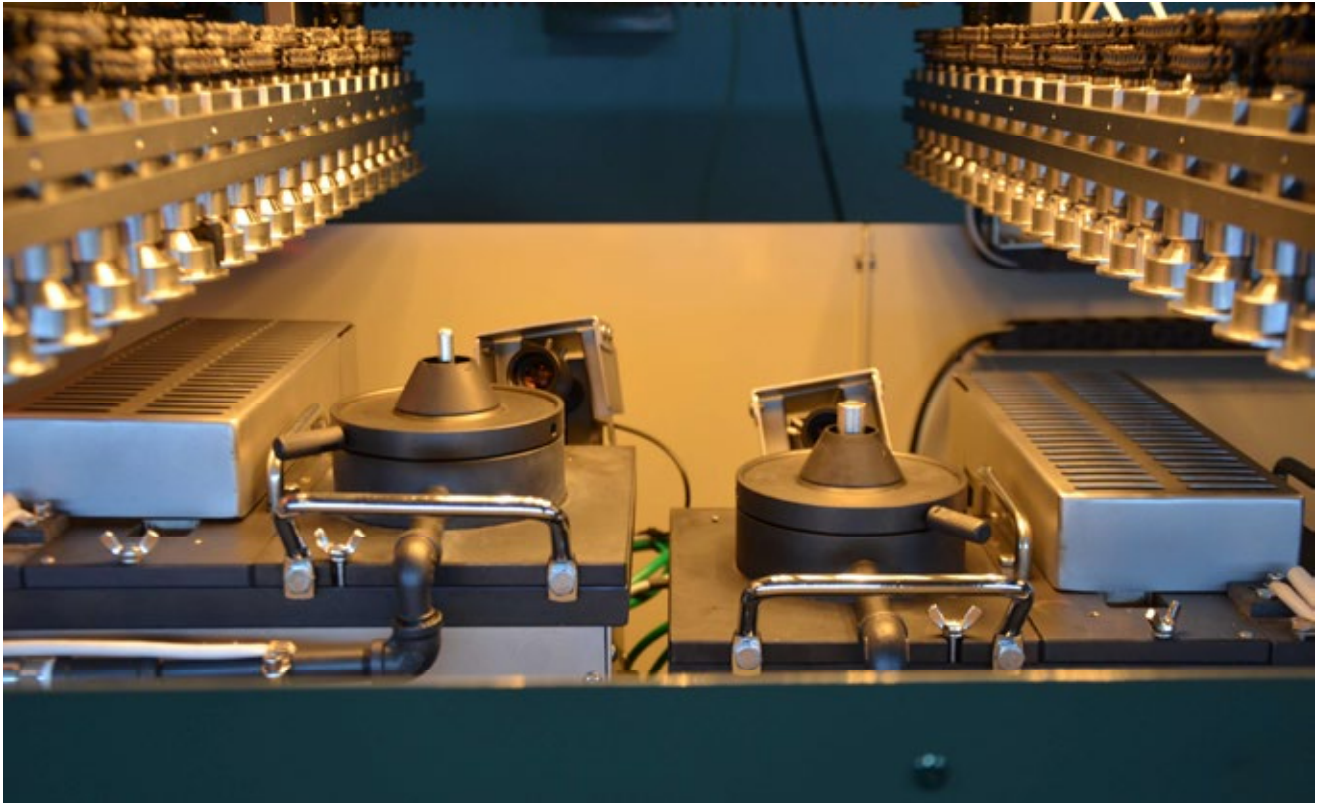
Can sequence use solder pot 1 & solder pot 2, or use them in simitiously for double production.
Can use one fluxer for all pads, or use two fluxer to double producton.

Individual Z axis at each solder station.

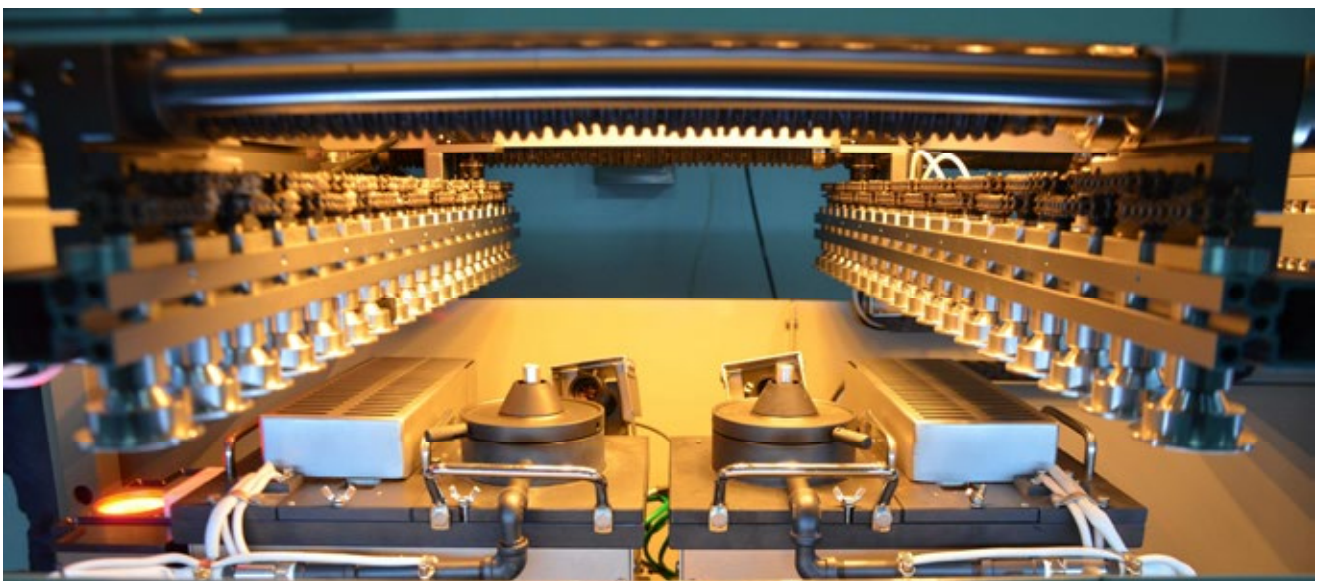


Various Soldering Application

Z axis individual run, can equip with different nozzle. For different application like First pot 1 then pot 2 for soldering or first pot 2 then pot 1, or one solder working and another standby waiting for next programmed board



Two same nozzle. For same PCB in carrier. Solder two boards at same time to double production.



FLEX-i2 Specifications

| General | |
|----------------------------|--|
| Operating power/Max power | 6KW/16KW |
| Conveyor width | 80--508mm |
| PCB top clearance | 100mm |
| PCB bottom clearance | 35mm |
| Machine dimension | 1420(L)*1725(W)*1700(H) |
| Net weight | 1000KG |
| Power supply | 3PH 380V 50HZ |
| Air supply | 3-5 bars |
| Exhausting required | 800M3/h |
| PC | Yes |
| Typical Program Time | 10 Minutes |
| PCB Robotic Platform | |
| Flux Nozzle Type | Drop jet fluxer made in Germany |
| Flux Nozzle Quantity | Standard equip 1 set, optional to equip another set |
| Flux Tank Capacity | 1L |
| Flux Tank Quantity | Standard equip 1 set, optional to equip another set (when use two different flux) |
| Flux Nozzle | Adjustable with solder pot together |
| Axes of Motion | Share XYZ table with solder pot |
| Position Accuracy | + / - 0.05mm |
| Preheat | |
| Preheating method | Top & bottom IR |
| Solder Management | |
| Solder pot type | Standard equipped mechanical pump, optional with electro-magnetic pump(made in Germany) |
| Standard Solder Stations | 2 |
| Solder Pot Capacity | 15 kgs (mechanical pump), 11kgs (electro-magnetic pump) |
| Solder pot distance | 180mm--250mm (mechanical pump), 160--250mm (electro-magnetic pump) |
| Soldering area | Max PCB W450 x L508mm (18" x 20") (Two nozzle solder individually) Max PCB W235 x L508mm (9.25" x 20") (Two nozzle solder parallel) |
| Solder Temperature Control | PID |
| Heat-Up Time | About 30mins |
| Max Temperature | 350 °C |

| | |
|---------------------------------|-----------------------------------|
| Mini Wave Nozzles | Dia 4,6,8,10,12mm |
| Customized nozzle | Available |
| Solder nozzle Distance | Adjustable by software |
| Axes of Motion | X, Y, Z1, Z2 |
| Motion Control | All servo control with ball screw |
| Position Accuracy | + / - 0.05mm |
| (N2) Inertion Management | |
| N2 Consumption per Nozzle | 1.5m3/H Total: 3m3/h |
| Required N2 Purity | >99.99% |