| Machine Specification     |                                  |                              |   |  |
|---------------------------|----------------------------------|------------------------------|---|--|
| Model                     | KTM-350                          | Solder pot type              | 4 <sup>th</sup> adjustable                            |  |
| PCB width                 | Max.50~350mm                     | Heating<br>technology        | Matrix straight heating, heating efficiency up to 95% |  |
| PCB convey height         | 750±50mm                         | Solder pot temp.             | Room temp.to 350°C, accuracy±1-2°C                    |  |
| Conveyor speed            | 0-1800mm / Min                   | Solder pot<br>temp. accuracy | ±1°C  |  |
| Angle                     | 3~7 degree                       | Finger types                 | FJ type/L type/ customized                            |  |
| Component<br>height limit | Max.100mm                        | Solder bar<br>adding way     | Manually  |  |
| Wave height<br>range      | 0~18mm keep steady               | Temp. control                | P.I.D+SSR   |  |
| Wave quantity             | 2                                | Machine<br>control           | PLC+PC  |  |
| Preheating length         | 1800MM                           | Width adjust                 | Manually/motorized (option)                           |  |
| Preheating zone           | 4 zones                          | Flux adding<br>way           | Automatically   |  |
| Conveyor<br>direction     | Left to right                    | Flux flow rate               | 10~100ml/min  |  |
| Preheat power             | 20 KW                            | Spray method                 | Step motor  |  |
| Preheat temp.             | Room temp.~250°C<br>(adjustable) | Flux recycle                 | Tray to collect                                       |  |
| Heating model             | Hot air                          | Electricity                  | 3P 5 wires 380V/3P 220V                               |  |
| Solder bar type           | Lead-free                        | Total power                  | Max.22KW  |  |
| Solder pot power          | 14kw                             | Normal<br>running power      | Approx.3-5kw  |  |
| Solder pot capacity       | Approx.450kg                     | Air supply                   | 4~7KG/CM2   |  |
| Solder pot<br>material    | Cast iron                        | Dimension                    | 4500*1600*1730mm                                      |  |
| Weight                    | Approx.1500kg                    |                              |   |  |

| Machine cover        |   |  |  |
|----------------------|---|--|--|
|                      | Streamline cover design, the frame is made of thick square tube, the cover is |  |  |
| Structure            | made of 2mm steel plate. There are totally 6 wheels to move the machine       |  |  |
|                      | easily.   |  |  |
| Front door           | Fully enclosed glass door, transparent, pneumatic holder to support, ensure   |  |  |
| structure            | the operating and repairing space.  |  |  |
| Machine top          | Anti-explosion lamp   |  |  |
| Surface treatment    | Painted with white color  |  |  |
| Flux spraying        |   |  |  |
| Spray nozzle         | Spray range:20~65mm,adjustable, nozzle height: 50~80mm adjustable,            |  |  |
|                      | max. flow rate:100ml / min  |  |  |
| Air circuit          | Acid and alkali resistant air pipe, the brand is SMC from Japan.              |  |  |
| Nozzle moving system | Step motor to drive, Mitsubishi PLC, with proximity switch and entrance       |  |  |
|                      | sensor to control, according to the coming PCB's speed and width, the         |  |  |
|                      | spraying system can detect and starts to work.                                |  |  |
| Flux recycle         | Tray to hold the waste water and flux, can be draw out easily, make           |  |  |
| system               | maintenance very convenient.  |  |  |
| Flux exhaust         | Exhaust system: stainless steel mesh frame+ double layers filter, recycle the |  |  |
| system               | flux to maximum.  |  |  |
| Isolated air curtain | Air pressure type knife, blow the redundant flux into the recycling box, to   |  |  |
|                      | avoid the flux to enter into the preheating zones, ensures the safety.        |  |  |
| Spraying box         | Made of full stainless steel, easy to clean and repair. Anti-corrosion, very  |  |  |
| structure            | durable.  |  |  |
|                      |   |  |  |

| Preheating                |   |   |  |
|---------------------------|---|---|--|
| Preheating zone quan.     | Preheating length is 1800mm, divided into 4 sections, supply abundant adjusting space, very good for big PCB and complicated PCB. Reduce the heat impact on PCB, improve the production efficiency. |   |  |
| Temp. control method      | Mitsubishi temp. collecting module, PID is very precise and stable.   |   |  |
| Heating parts             | The heaters are imported from Taiwan, heat up very fast, with long life, small thermo lag; The heat is even in the zones.   |   |  |
| Preheating power          | 22kw  |   |  |
| Install mode              | The heating module adopts drawer design, easy to replace and repair, make the maintenance very convenient.  |   |  |
| <u>Transmission</u>       |   |   |  |
| Rail                      |   | Made of aluminum, wear resistant and without distortion.          |  |
| Rail parallelism          |   | Width adjusting accuracy less than 0.2mm                          |  |
| Width adjust              |   | Manually/motorized  |  |
| C/V speed setting unit    |   | Min.1mm / min 0-1800mm / min                                      |  |
| C/V speed variation range |   | Electric closed-loop control, within 0-10mm / min                 |  |
| Conveying motor           |   | TCG motor from Taiwan, 90w, with over-loaded protection function. |  |

| Solder pot             |  |
|------------------------|--|
| Low oxidization design | High quality solder pot, the heat is very steady. Adopts liquid solder flow design, reduce the impact oxidization, especially for small PCB. |
| Economical running     | Reduce the power consumption   |
| Moving method          | Motorized  |
| Wave adjustable height | 0-18mm   |
| Wave motor             | TCG motor from Taiwan, adjust the wave height with frequency conversion.   |
| Preheating parts       | Adopts the stainless steel heaters from Taiwan, with long life and power saving up to 40% daily.   |
| Cooling                |  |
| Cooling method         | Adopts high power centrifugal fan, reduce the air bubble and solder pad stripping  |

## Automatic finger cleaning

Imported premium pump, can wash the fingers from both sides. Propyl alcohol to clean and can be recycled.

## Control software

- ★Automatic alarm function for failure: thermocouple abnormal, temp. too high or too low; if preheating system or solder pot is abnormal, the heating stops.
- ★Preheating temp., solder pot temp., conveyor speed, spraying and cooling can be controlled separately.
- ★One week automatic power on/off setting (three times one day)
- ★The emergency stops are in front, rear of the machine, press them in case of any emergency.