

ROBO-SOL

**FLEXIBLE
ROBOT
SOLDERING**



Locations



IN-LINE ROBOT SOLDERING

Although various soldering techniques have been invented and applied in manufacturing field today, “iron soldering” remains the most technically established and stable technology, which provides high mechanical strength and reliability.

Using Japan Unix soldering iron & wire feed technology, Quiptech has developed ROBOSOL, Robot Soldering Cell.



ADVANTAGES OF ROBOT SOLDERING

1. Consistency
2. Accuracy
3. Quality
4. Flexibility
5. Man-Power Reduction
6. Low consumption of electricity
7. Reduced consumption of solder material
8. Save on flux cost
9. Eliminates flux cleaning cost
10. Eliminates the need for masking



CONCEPT

The soldering cell is designed around the UNIX-700FH-55 SCARA soldering robot from Japan Unix. The soldering robot is a SCARA 5-axis robot that offers a fast speed of up to 8,300 mm/sec and has high repeatability and rigidity. The axis stroke length is of 550mm, it is a versatile robot suited for tip soldering technology.

The soldering cell can work with

- a. PCB's before routing using a back-up table support
- b. Carriers where soldering is required on individual PCB's.



FEATURES

- Fully automated in-line soldering cell.
- Soldering routines are programmed with the help of the teaching pendant or by JPUnix developed software and stored on the Unix Controller
- Soldering routine includes:
 - X,Y,Z movement definition
 - Soldering position
 - Temperature control of the soldering tip
 - Full control of the solder wire (in-feed, back-feed) and solder quantity
 - All the conditions are unified inside the JPUnix robot controller



FEATURES

- The controller can store up to 495 programs, which can include up to 21,000 steps.
- The system can be programmed for solder point, arc or line with various soldering tips
- The programming is done by means of teach pendant or JPUx software that connects to the robot controller
- Uniquely the robot movement and soldering conditions are controlled in one programming interface.

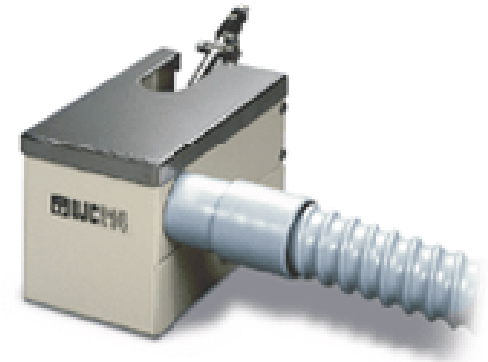


FEATURES

Several options have been included in the ROBOSOL configuration in order to have optimum process control

Air Cleaner:

This is an automated cleaner that uses compressed air to blow and clean the soldering tip. It is integrated as a function in the soldering program.



Brush Cleaner

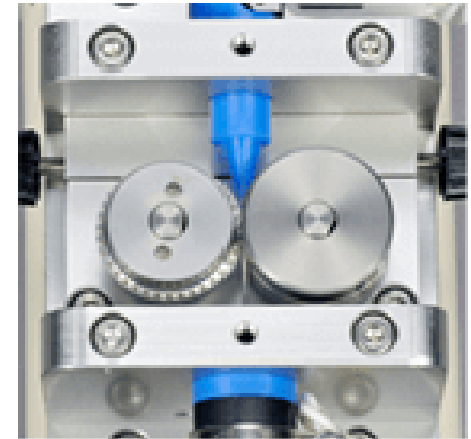
This is an automated cleaner for solder tips which removes stannous tin oxides and other impurities caused from soldering operations. It is fully automated and integrated as a function in the soldering program.



FEATURES

Clean Cut Feeder:

By notching the solder wire as it is fed through, the feeder significantly reduces flux dispersal and solder balls.



Tip Position Correction X/Y/Z:

This option automatically detects and compensates the tip position



FEATURES

10" intuitive touch panel interface with the following function control

- Program selection
- Conveyor width adjustment
- Board clamp
- Board support
- Pass-through function
- Review and reset of error conditions
- Fault diagnostics



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