TMT-R8000S

Standard Robot Soldering System

TMT-R8000S

ESD FREE   **LEAD FREE**

The Thermaltronics Robot System incorporates innovative design concepts and precision components to ensure accuracy. The combination of high precision hardware and intelligent software ensures precision soldering and low operator training costs.

- 6-Axis Soldering/Dispensing Platform
- Full vision mapping & Fiducial Marks
- Laser Height Measurement
- Curie Heat Technology provides precise temp. control
- Dynamic Compensation for board variance
- Fume extraction Kit
- Flux & Solder Paste dispensing (Optional)
- Nitrogen Protection (Optional)

TMT-R8000S FEATURES

1. Unlike typical Cartesian robots the Thermaltronics Robot, Model TMT-R8000S, is equipped with full vision, (eyes) to verify the procedure being undertaken and does not simply follow a pre-determined program. In this respect it has an observation mode, a verification mode and as a result – a decision making capability. (Basically a brain). This capability of collecting and utilizing data for production processing is one of the most important factors necessary to meet the requirements of Industry 4.0 standards.

2. Through the use of servo motors and precision ballscrews, the Thermaltronics Robotic system is able to accurately meet the requirements of high speed operation, repeatability and durability. The software is designed to transform system commands into functional operating procedures and with its 6-axis capability, solder tip and solder wire feeding operation from separate axis control, the applications extend beyond conventional soldering and dispensing operations.

3. Application programming is made simple by using full image-merging and mapping techniques.

4. Dynamic laser height measurement/adaptive control, ensures precision soldering repeatability.

5. A full vision mapping system with fiducial marks, provides for intelligent decision making during procedural operations

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TMT-R8000S SPECIFICATIONS

Input Line Voltage	TMT-R8000PS	100-240 VAC
Servo Motor Axis	6 Axis	
Camera View	400mm x 300mm	
PCBA Size Max	300mm x 300mm	
Soldering Region Max	300mm x 300mm	
Dynamic Range of Shaft	X Axis	400mm Standard
	Y Axis	300mm Standard
	Z1, Z2 Axis	100mm, 20mm
	R Axis	330°
Shaft Speed	X, Y Axis	0.1 ~ 300 mm/sec
	Z Axis	0.1 ~ 300 mm/sec
	R Axis	0.1 ~ 360°/sec
Positioning Repeatability	X, Y & Z Axis	±0.02 mm
	R Axis	±0.03°
Camera	Resolution	1600 x 1200
Air Pressure	Max. 6 Bar/ 87 psi	
Solder wire diameter range	0.3 ~ 1.6 (mm)	
Controller	Industrial Computer w/Custom Software	
Ports and connectors	RJ45, USB, COM	
Operating System	Windows 10 Professional	
Soldering System	120 watts (40 watts RF output)	
Curie Heat Technology	250C ~ 500C (Tip cartridge pre-defined)	
Power Supply	100 ~ 240V AC	
Power Consumption	1 KVA	
Dimensions	840mm (H) x 690mm (D) x 660mm (W)	
Weight	100 KG	

SOFTWARE INTERFACE