



TMT-R9000S

Precision Robot Soldering System



TMT-R9000S

**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.

- ▶ Dual Arm, 6 Axis Soldering/Dispensing Platform
- ▶ Large Soldering Area
- ▶ Intelligently compensates for PCBA variance
- ▶ Full vision mapping & Fiducial Marks
- ▶ Laser Height Measurement
- ▶ Curie Heat Technology provides precise temp. control
- ▶ Fume extraction
- ▶ Flux & Solder Paste dispensing (Optional)
- ▶ Pre-heater (Optional)

TMT-R9000S FEATURES

1. Unlike typical Cartesian robots the Thermaltronics Robot, Model TMT-R9000S, 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, 360° independent fixture rotation, 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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SPEED - QUALITY - COST REDUCTION - INCREASED PRODUCTIVITY

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TMT-R9000S SPECIFICATIONS

Input Line Voltage	TMT-R9000PS-1	100-110 VAC
	TMT-R9000PS-2	220-240 VAC
Servo Motor Axis	6 Axis	
Camera View	600mm x 500mm	
PCBA Size Max	670mm diameter with rotation	
Soldering Region Max	560mm x 430mm without PCB rotation 436mm diameter with PCB rotation	
Dynamic Range of Shaft	X Axis	600mm Standard
	Y Axis	500mm Standard
	Z1, Z2 Axis	100mm
	R Axis	360°
Shaft Speed	X, Y & Z Axis	0.1 ~ 300 mm/sec
	R Axis	0.1 ~ 450°/sec
Position Repeatability	X, Y & Z Axis	±0.01 mm
	R Axis	±0.02°
Camera resolution	0.015mm	
Air Pressure	Max. 6 Bar/ 87 psi	
Solder wire diameter range	0.4mm - 1.5mm (Optional: 0.3mm - 2.0mm)	
Controller	Industrial Computer w/Proprietary Software	
Operating System	Windows 10 Professional	
Soldering System	120 watts (40 watts RF output)	
Curie Heat Technology	250°C - 500°C (382°F - 932°F) (Tip cartridge pre-defined)	
Power Supply	100 ~ 240V AC	
Power Consumption	1.2 KVA	
Dimensions	1050 mm (H) x 1200mm (D) x 920mm (W)	
Weight	300 KG (660 LBS)	

SOFTWARE INTERFACE

