

# Smart Dispensing Robot TSR2000



The TSR2000 series smart dispensing robot is designed specifically for precise fluid dispensing applications and it is compatible with all valve types and controllers. The user-friendly smart PC-based software makes the robot easy to program and simple to operate.

Smart features include intuitive software with touch screen programming capability and CAD/DXF file import. The vision system allows the robot to automatically correct part misalignment and shorten programming time via its pattern recognition feature. The laser height sensor allows the robot to automatically adjust Z height to compensate for both surface height changes and part variation.

From a general assembly manufacturer looking to automate an existing dispensing application to an engineer designing a production process from the very beginning, Techcon Systems dispensing robots offer unsurpassed value in automated precision fluid dispensing.

#### The Dispensing Robot series is available in 3 platforms:

- TSR2201: 200mm X 200mm
- TSR2301: 300mm X 300mm
- TSR2401: 400mm X 400mm

#### Smart features are available as add-on kits:

- TSR-STVHKIT: Software, Touch Screen, Vision, Height Sensor Kit
- TSR-STVKIT: Software, Touch Screen, Vision, Kit
- TSR-STHKIT: Software, Touch Screen, Height Sensor Kit
- TSR-SVKIT: Software, Vision, Kit
- TSR-SHKIT: Software, Height Sensor Kit
- TSR-SKIT: Software Kit

## Key Features & Benefits

### FRIENDLY USER INTERFACE:

- PC based software
- Touch screen programming
- CAD/DFX conversion

### SMART VISION:

- CMOS color camera
- Automatic alignment
- Pattern recognition

### LASER HEIGHT SENSOR:

- Pinpoint accuracy with integrated laser height sensing
- Detects variations on the surface of a product and automatically adjusts the tip dispensing height
- Prevents uneven deposits and tip or workpiece damage

## SPECIFICATIONS

FEATURES	TEACH PENDANT ROBOT	ROBOT WITH SMART ADD-ON FEATURES
Operating System	Teach Pendant	Smart SBC based Software with Touch Screen interface
Power Supply	100V - 240V AC	
Power Consumption	80 W	
Number of Axes	3	
Dimensions (W x D x H)	TSR2201: 303/377/521mm TSR2301: 418/513/521mm TSR2401: 518/613/521mm	
Maximum Working Area (X/Y/Z)	TSR2201: 200/200/100mm TSR2301: 300/300/100mm TSR2401: 400/400/100mm	
Maximum Speed (X/Y/Z)	X/Y: 600mm/second; Z: 200mm/second	
Repeatability	0.02mm	
Resolution	0.01mm	
Workpiece payload	TSR2201: 6 Kg TSR2301/TSR2401: 8 Kg	
Tool payload	TSR2201: 2 Kg TSR2301/TSR2401: 5 Kg	
Storage for teaching files	999 files or 60,000 bytes	9,000 files min. or 9.5GB
Storage for processing files	255 files	9,000 files min. or 9.5GB
Working Temperature	0 - 40°C	
Relative humidity	20 - 90%	
Touch Screen Interface	none	1920 x 1080 (Optimal Resolution)
Camera Type	none	CMOS (2048 x 1536 Resolution, 3.2 Megapixels)
Height Sensor	none	Laser sensor Resolution: 7µm; Detection Range: 100 ±35mm
General Purpose I/O	4 inputs / 4 outputs (Available option: 16 I/O)	

### Typical Applications

- Dispense dots of solder paste
- Form-in-place gasket
- Filling
- Potting
- Encapsulation
- Bonding
- Coating

### Free Application Testing

Techcon Systems offers a free application testing service to help customers select the right dispensing equipment. Our application lab is equipped with a full range of dispensing equipment. Once the testing is completed, our application team will provide a detailed test report, samples of dispensing results, photos and a video to make your decision making process as quick and easy as possible.

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