

TOSHIBA MACHINE'S  
NEW, HIGH SPEED SCARA ROBOT

# TH550

## High-speed! Powerful! Compact!

### Robot specifications



Model	TH550	
Type	Horizontal Multi-joint	
Number of controlled axis	4	
Arm length	550mm(300mm+250mm)	
Working envelope	Axis 1	$\pm 120^\circ$
	Axis 2	$\pm 145^\circ$
	Axis 3(Z-axis)	150mm(Option:300mm)
	Axis 4(Z-axis rotation)	$\pm 360^\circ$
Maximum speed	Axis 1	375°/s
	Axis 2	600°/s
	Axis 3(Z-axis)	2000mm/s
	Axis 4(Z-axis rotation)	2000°/s
	Composite	6.21m/s
Standard cycle time(with 2kg payload)	0.33s	
Maximum payload mass	5kg	
Allowable moment of inertia at end	0.05kgm <sup>2</sup>	
Positioning repeatability	X-Y(Plane)	$\pm 0.015$ mm
	Z-axis(Vertical)	$\pm 0.01$ mm
	Axis 4(Z-axis rotation)	$\pm 0.015^\circ$
Input/output signals for hand	5 inputs / 4 outputs	
Air piping for hand	$\phi 4 \times 4$	
Position detecting system	Absolute system	
Robot-Controller cable	5m(Option length maximum 25m)	
Mass	29kg	

### Controller specifications



Model	TS2000	
No. of axis	Maximum 5-axis simultaneous control	
Operation mode	PTP,CP(linear,circular),Short-cut,Arch motion	
Storage capacity	Total : Approx. 6400 points+12800 steps 1 program : Approx. 2000 points+3000 steps	
No. of programs	Max. 256(247 user files+9 system files)	
Programming language	SCOL (proprietary, similar to BASIC)	
Teaching unit	Teach pendant TP1000,with 5-meter cable (Program can be written on PC)	
External Inputs/outputs(general)	31+7 inputs / 22+10 outputs (7/10 can be switchable with system)	
Hand control signals	5 inputs / 4 outputs	
External operation signals(exclusive)	Inputs:Cycle operation start,stop,reset,etc. Outputs:Servo-On,status,emergency stop,ready for operation,malfunction alarm,etc.	
Serial communication port	RS-232C : 2ports	
Other functions	Torque control,Interruptive function, self-diagnosis, I/O control and communications during motion, coordinate calculations, etc.	
Power supply	Single-phase AC 190V~250V 50/60Hz	
Power capacity	2.3kVA	
Outer dimensions and mass	290W×230H×280D(mm), 12kg	
PC software(optional)	TSPC...Program editor,Teaching,remote operation,etc.	
Options	I/O extension,field-network connection, Conveyor synchronization,etc.	