

Shibaura Machine

SCARA robot THL Series

THL1200

1200mm arm length addition to the THL series.

Wider working envelope providing a greater operational area.

Robot Specifications



Model		THL1200
Type		Horizontal multi-joint
No. of controlled axes		4
Arm length		1,200 mm (750 mm+450 mm)
Working envelope	Axis 1	±125 deg
	Axis 2	±155 deg
	Axis 3 (Z-axis)	0~300 mm
	Axis 4 (Z-axis rotation)	±360 deg
Maximum speed	Axis 1	187.5 deg/sec
	Axis 2	217.5 deg/sec
	Axis 3 (Z-axis)	2,000 mm/sec
	Axis 4 (Z-axis rotation)	1,700 deg/sec
	Composite (Axis 1 and 2 composite)	5.7 m/sec
Maximum payload mass *1		10 kg
Standard cycle time (with 2 kg load) *2		0.58 sec
Allowable moment of inertia *1		0.2 kgm ²
Positioning repeatability *3	X-Y	±0.05 mm
	Z (axis 3)	±0.03 mm
	C (axis 4, rotation)	±0.014 deg
Hand wiring		8 inputs and 8 outputs
Hand pneumatic joint **4		φ6×3 pcs
Position detection		Absolute
Robot controller cable		3.5 m
Power supply		1.4 kVA
Mass		40 kg

- *1: Speed and acceleration/deceleration rates may be limited depending on the motion pattern, load mass and amount of offset.
 *2: Horizontal 300 mm, vertical 25 mm, round-trip with coarse positioning. Continuous operation is not possible beyond the effective load ratio.
 *3: Positioning repeatable accuracy in one-direction movement, when the environmental temperature and robot temperature are constant. Not absolute positioning accuracy. Positioning repeatability for X-Y and C are for when Z-axis is at the upper-most position. Trajectory accuracy is not ensured.
 *4: Pneumatic joints are provided on the base. Pipes are to be provided by the customers.

Controller Specifications



Controller TSL3000

Controller TSL3000E

Model		TSL3000
No. of Controlled Axes		4
Motion Mode		PTP (point-to-point), CP (continuous path; Linear, Circular), Short-Cut, Arch Motion
Storage capacity		Total: Approx. 6,400 points + 12,800 steps 1 program: Approx. 2,000 points + 3,000 steps
No. of registrable Programs		Max. 256 (247 User files, 9 System files)
Teaching Unit (Optional)		Teach Pendant TP1000, TP3000 Programming by PC Software TSAassist
External input/output signals		8 inputs and 8 outputs
Hand control signal		8 inputs and 8 outputs
External operation signals	Input	Program selection, start, stop, program reset, etc.
	Output	Servo ON, operation ready, fault, cycle stop, etc.
Communication port		RS232C 1 port (HOST or TCPRG) RS232C 1 port (General-purpose "COM1") RS4285 1 port (for I/O expansion) RS422 1 port (for TP1000) Ethernet
Other functions		Torque control, Interruptive functions, self-diagnosis, I/O control and communications during motion, Coordinate calculations, Built-in PLC, etc.
Power supply		Single-phase, 190 to 240V AC, 50/60 Hz
Outer dimensions and mass *5		150(W)×266(H)×304(D) cm, 7 (kg)
PC Software (Optional)		TSAassist: Robot Programming assist tool High-performance 3D simulation, program editor, teaching function, etc., TSPC TC-WORX: PLC programming
Optional specifications *6		I/O signal polarity ("N-type" or "P-type"), I/O extension, Field network (PROFIBUS, DeviceNet, CC-Link, EtherNet/IP, EtherCAT, PROFINET)

Teach Pendant (Optional)



TP1000



TP3000

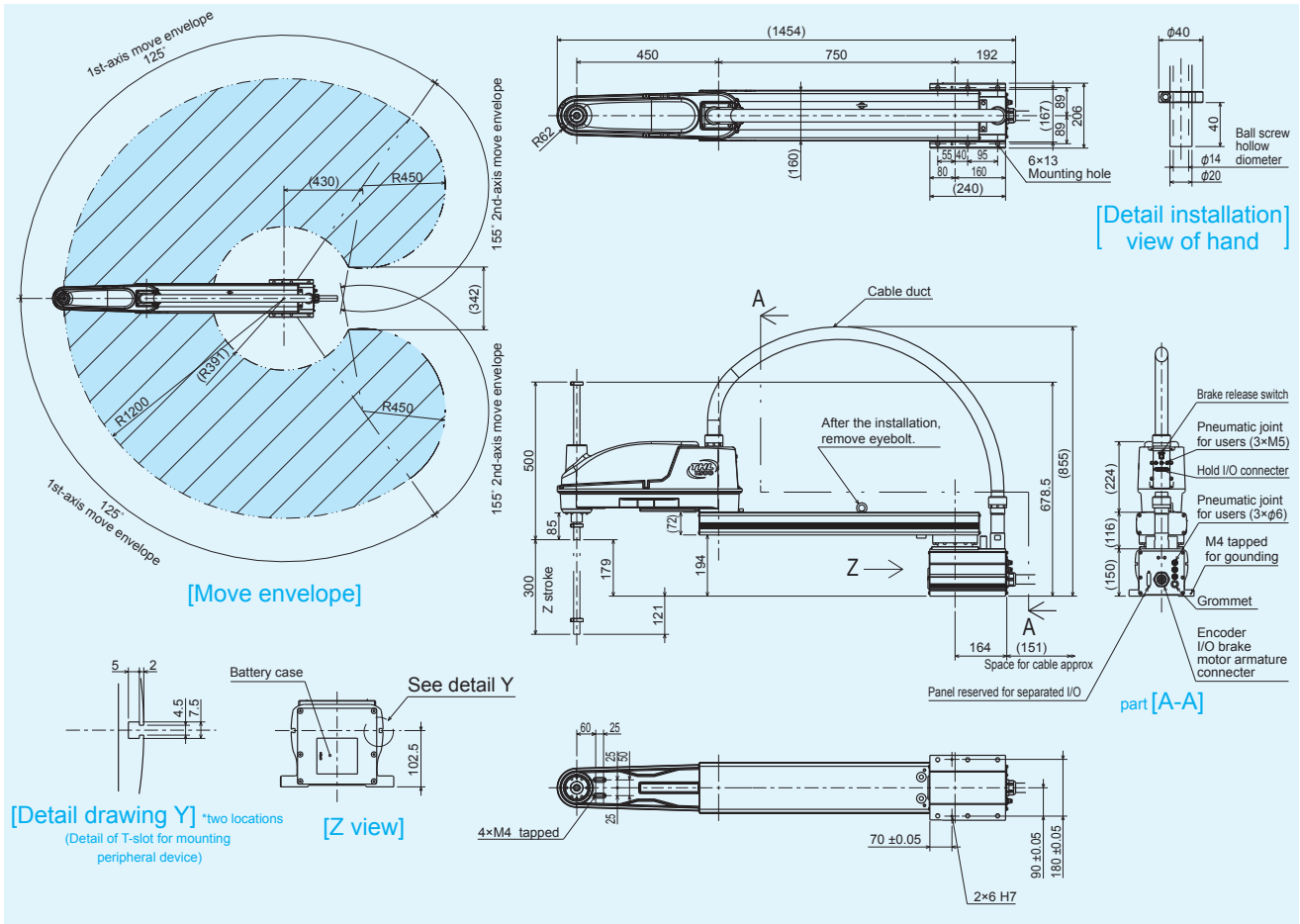
Optional Controller Specifications

Model		TSL3000E
Storage capacity		Total: Approx. 12, 800 points + 25,600 steps 1 program: Approx. 2,000 points + 3,000 steps
Outer dimensions and mass *5		320(W)×266(H)×304(D) cm, 13 (kg)
Optional specifications for TSL3000E		High-speed input signal, conveyor synchronization, CE compliance

*5: Height values include rubber feet. Space clearance is required for cable routing etc. Please contact us for the full details of dimensions.

*6: Ethernet is a registered trademark of XEROX Corp. in the U.S.A. CC-Link is a registered trademark of CC-Link Partner Association. DeviceNet and EtherNet/IP are registered trademarks of ODVA. Profibus and PROFINET are a registered trademark of PROFIBUS User Organization. EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

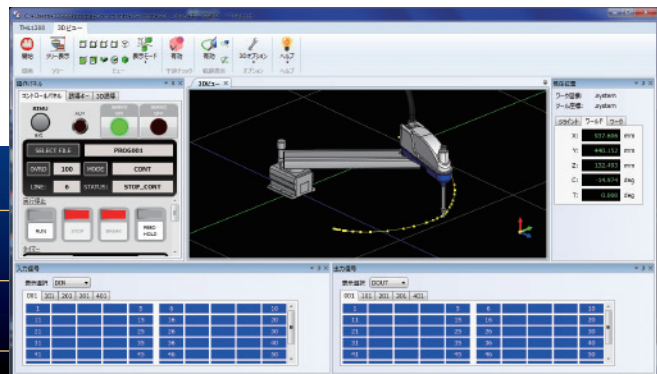
THL1200 [External View]



New Generation Robot Programming Tool



- High Performance 3D Simulation
- Highly Functional Program Editor
- Easy Operation



Powerful assistance to all phases of automation facilities, from planning, installation to enhancement

SHIBAURA MACHINE CO., LTD.

TM ROBOTICS (EUROPE) LTD.

Unit 2, Bridge Gate Centre, Martinfeld,
 Welwyn Garden City, Herts AL7 1JG, UK
 TEL:[44]-0)1707-290370 Mail:sales@tmrobotics.co.uk

TM ROBOTICS (AMERICAS) INC.
 755 Greenleaf Avenue, Elk Grove Village, IL 60007, U.S.A.
 TEL:[1]-847-709-7308 Mail:info@tmrobotics.com

www.shibaura-machine.co.jp
www.tmrobotics.co.uk
www.tmrobotics.com

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