



Two Axes Servo Driven Robot

ST2-Y900-1400T



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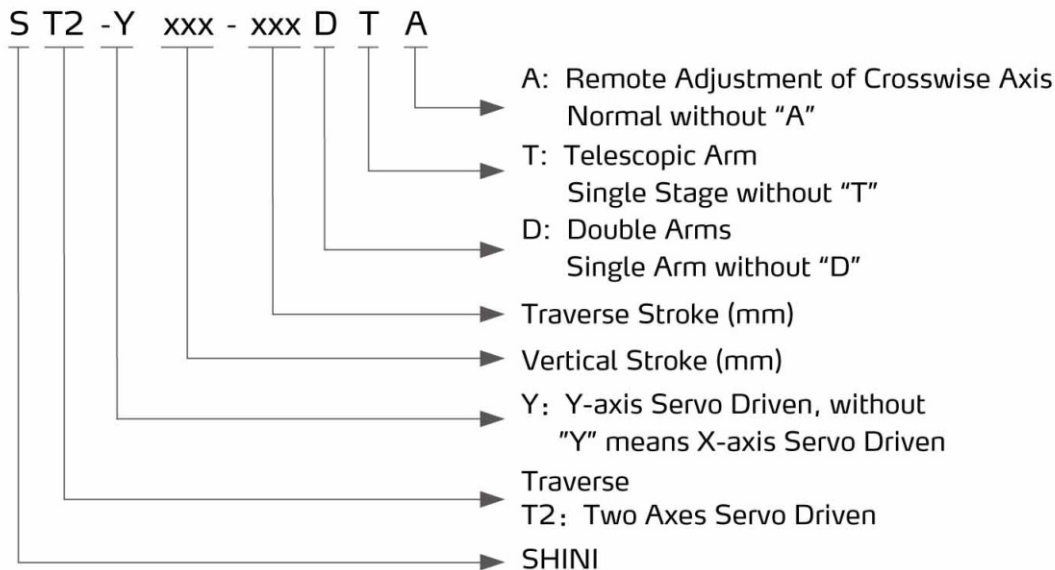
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Refer carefully to this manual before operation.

■ Coding Principle



Hand Controller

■ Features

● Precision

Two servo axes are driven by heavy duty servo motor with cooperation of precise linear rails and high power V belts; fast, silent and precise. Wrist mechanism employs pneumatic driven rack and pinion system, which accomplishes smooth, stable and precise flipping motion. Vertical arm(s) with telescopic design efficiently minimizes the cycle time and height of the robot.



ST2-1100-1800T

● Safety

High efficient shock absorbers allow fast and precise pneumatic driven motion. Position limit sensors and blocks effectively prevent mechanical and electrical malfunctions. Control board with short circuit function.

● Intelligence

3.2 inch true color LCD, each output signal control with intelligent detection, short circuit, overload, thermal protection. Real-time monitoring the status of robot. Display error messages, easy to operate and keep safe use. Depend on the configuration, flexible to set the extend input and output, provide plug and use without modify control system. Easy to use but powerful teach program with verify modes of servo positioning, can use conditions judgment, loop control, waiting and so on signals. The servo positioning support 10 cycles location area, each matrix size up to 99×99, capable of arranging and stacking functions.



ST2-Y1500-2200DT

● User Friendly

Multi-languages system and reserved auxiliary equipment slots able to support our global clients' need.

ST2 Series

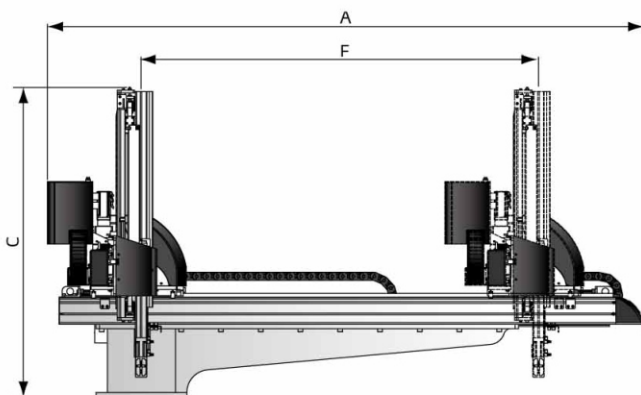
Application

The ST2 series robot is designed for rapid and precise removal of sprue and products from injection molding machine. One arm and double arms, standard and telescopic arm(s) are selectable according to the application of 2-plate mold, 3-plate mold or hot runner system. Multiple stop points in Z axis, convenient for package. Suitable for injection molding machine under 450T clamp force.

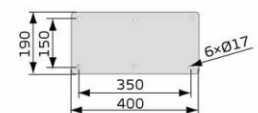
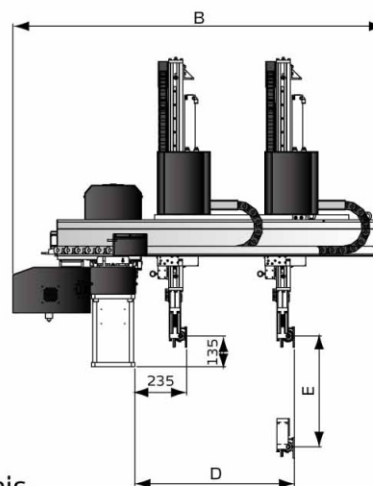
Y-axis servo suitable for single, short cycle time mold. Stacking function provides multiple stop points in Y1 and Z axis.

X-axis servo is suitable for frequent mold application, easy to adjust crosswise stroke. Stacking function provides multiple stop points in X1 and Z axis.

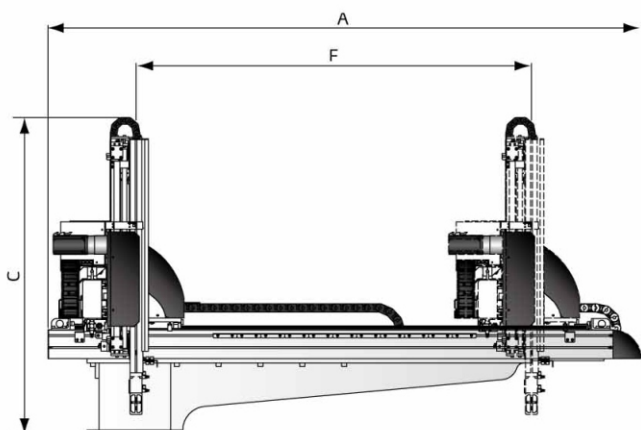
Outline Drawings



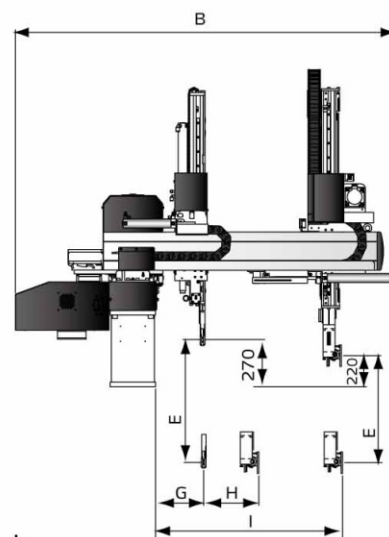
X and Z Axes Servo Telescopic

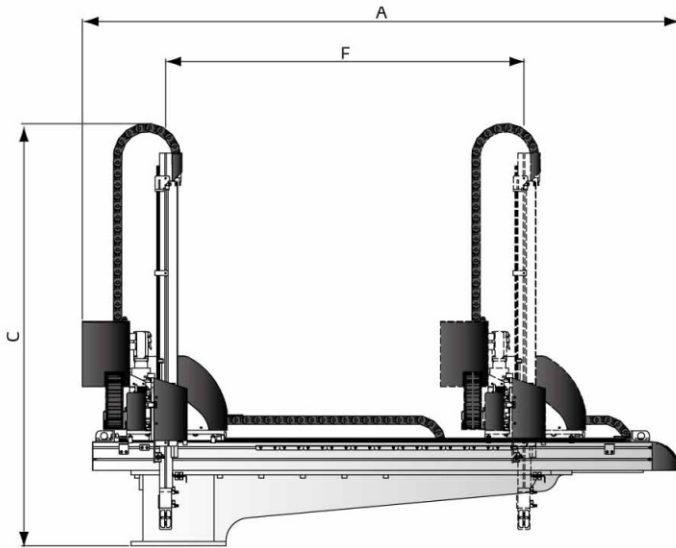


Base Flange (Uniform)

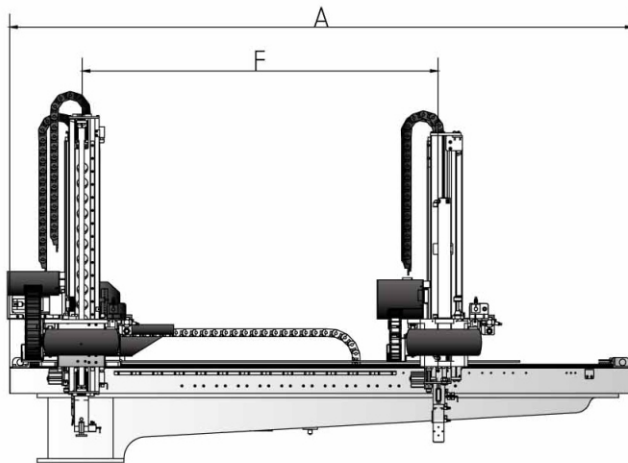
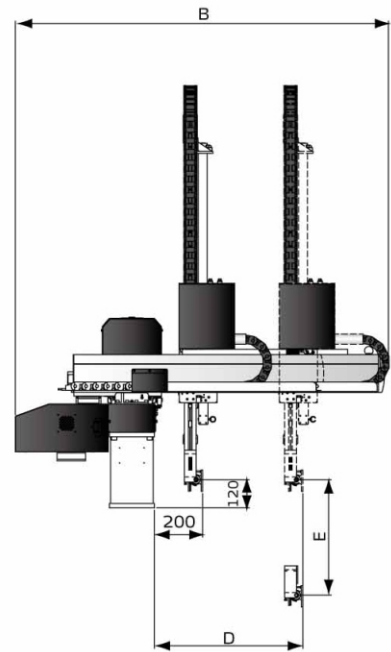


Y and Z Axes Servo Telescopic

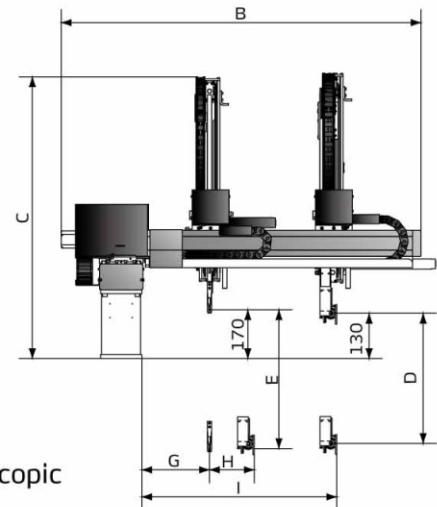




X and Z Axes Servo



Y and Z Axes Servo Telescopic



ST2 Series

Specifications

Model(Small telescopic)		ST2-700-1400T	ST2-900-1600T	ST2-1100-1800T
IMM (ton)		100 ~ 200	200 ~ 300	300 ~ 450
Traverse Stroke (mm)		1400	1600	1800
Crosswise Stroke (mm)		460	580	700
Vertical Stroke (mm)		700	900	1100
Max Load (with tool) (kg)		3	3	3
Min Pick-out Time (sec)		1.8	2	2.2
Min Cycle Time (sec)		6.3	6.5	6.7
Air Pressure (bar)		4 ~ 6	4 ~ 6	4 ~ 6
Max. Air Consumption (NI/cycle) *		7.5	9.5	11.5
Weight (kg)		260	280	300
Dimensions (mm)	A	2300	2500	2700
	B	1430	1550	1670
	C	1250	1350	1450
	D (max)	700	820	940
	E (max)	700	900	1100
	F (max)	1400	1600	1800

Model(Small telescopic)		ST2-Y700-1200T	ST2-Y700-1400DT	ST2-Y900-1400T	ST2-Y900-1600DT	ST2-Y1100-1800T	ST2-Y1100-1800DT
IMM (ton)		100 ~ 200	100 ~ 200	200 ~ 300	200 ~ 300	300 ~ 450	300 ~ 450
Traverse Stroke (mm)		1200	1400	1400	1600	1800	1800
Crosswise Stroke (mm)	Main Arm	150	150	250	250	300	300
	Sub Arm	/	100	/	150	/	150
Vertical Stroke (mm)	Main Arm	700	700	900	900	1100	1100
	Sub Arm	/	750	/	950	/	1150
Max Load (with tool) (kg)		3	3	3	3	3	3
Min Pick-out Time (sec)		1.8	2.1	2	2.3	2.2	2.5
Min Cycle Time (sec)		6.6	6.6	7	7	7.2	7.2
Air Pressure (bar)		4 ~ 6	4 ~ 6	4 ~ 6	4 ~ 6	4 ~ 6	4 ~ 6
Max. Air Consumption (NI/cycle) *		7	12	9	15	11	18
Weight (kg)		250	270	260	280	270	290
Dimensions (mm)	A	2100	2300	2300	2500	2700	2700
	B	1430	1430	1550	1550	1730	1730
	C	1350	1350	1450	1450	1550	1550
	D (max)	700	700	900	900	1100	1100
	E (max)	/	750	/	950	/	1150
	F (max)	1200	1400	1400	1600	1800	1800
	G (min)	/	170	/	170	/	170
	H (min)	/	180	/	180	/	180
	I (max)	680	680	800	800	920	920

Notes: 1) "M" stands for middle mold detector. (suitable for three-plate mold.)

"EM12" stands for EUROMAP 12 communication interface.

"EM67" stands for EUROMAP 12 communication interface.

"N" stands for non-operation side, operation side without "N"

2) Power supply: 1Φ, 200~240V, 50/60Hz.

3) " * " Max. air consumption for vacuum device 60NI/min.

We reserve the right to change specifications without prior notice.

Model(Single stage)		ST2-700-1400	ST2-900-1600	ST2-1100-1800
IMM (ton)		100 ~ 200	200 ~ 300	300 ~ 450
Traverse Stroke (mm)		1400	1600	1800
Crosswise Stroke (mm)		480	600	720
Vertical Stroke (mm)		700	900	1100
Max Load (with tool) (kg)		3	3	3
Min Pick-out Time (sec)		2	2.2	2.4
Min Cycle Time (sec)		6.5	6.8	7
Air Pressure (bar)		4 ~ 6	4 ~ 6	4 ~ 6
Max. Air Consumption (NI/cycle) *		9	11	13.5
Weight (kg)		240	250	260
Dimensions (mm)	A	2300	2500	2700
	B	1430	1550	1670
	C	1600	1800	2000
	D (max)	690	810	930
	E (max)	700	900	1100
	F (max)	1400	1600	1800

Model(Middle telescopic)		ST2-Y1100-1800T	ST2-Y1100-1800DT	ST2-Y1300-2000T	ST2-Y1300-2000DT	ST2-Y1500-2200T	ST2-Y1500-2200DT
IMM (ton)		300 ~ 450	300 ~ 450	450 ~ 650	450 ~ 650	650 ~ 850	650 ~ 850
Traverse Stroke (mm)		1800	1800	2000	2000	2200	2200
Crosswise Stroke (mm)	Main Arm	400	400	400	400	400	400
	Sub Arm	/	200	/	200	/	200
Vertical Stroke (mm)	Main Arm	1100	1100	1300	1300	1500	1500
	Sub Arm	/	1150	/	1350	/	1550
Max Load (with tool) (kg)		8	8	10	10	12	12
Min Pick-out Time (sec)		3	3	3.2	3.2	3.5	3.5
Min Cycle Time (sec)		8	8	8.5	8.5	9	9
Air Pressure (bar)		4 ~ 6	4 ~ 6	4 ~ 6	4 ~ 6	4 ~ 6	4 ~ 6
Max. Air Consumption (NI/cycle) *		8	8	10	10	12	30
Weight (kg)		450	650	500	750	550	850
Dimensions (mm)	A	2500	2500	2700	2700	2900	2900
	B	1830	1830	1890	1890	1950	1950
	C	1500	1500	1600	1600	1700	1700
	D (max)	1100	1100	1300	1300	1500	1500
	E (max)	/	/	/	1350	/	1550
	F (max)	1800	1800	2000	2000	2200	2200
	G (min)	/	120	/	120	/	120
	H (min)	/	170	/	170	/	170
	I (max)	1050	1050	1100	1100	1150	1150

Notes: 1) "M" stands for middle mold detector. (suitable for three-plate mold.)
 "EM12" stands for EUROMAP 12 communication interface.
 "EM67" stands for EUROMAP 12 communication interface.
 "N" stands for non-operation side, operation side without "N"
 2) Power supply: 1Φ, 200~240V, 50/60Hz.
 3) " * " Max. air consumption for vacuum device 60NI/min.

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