

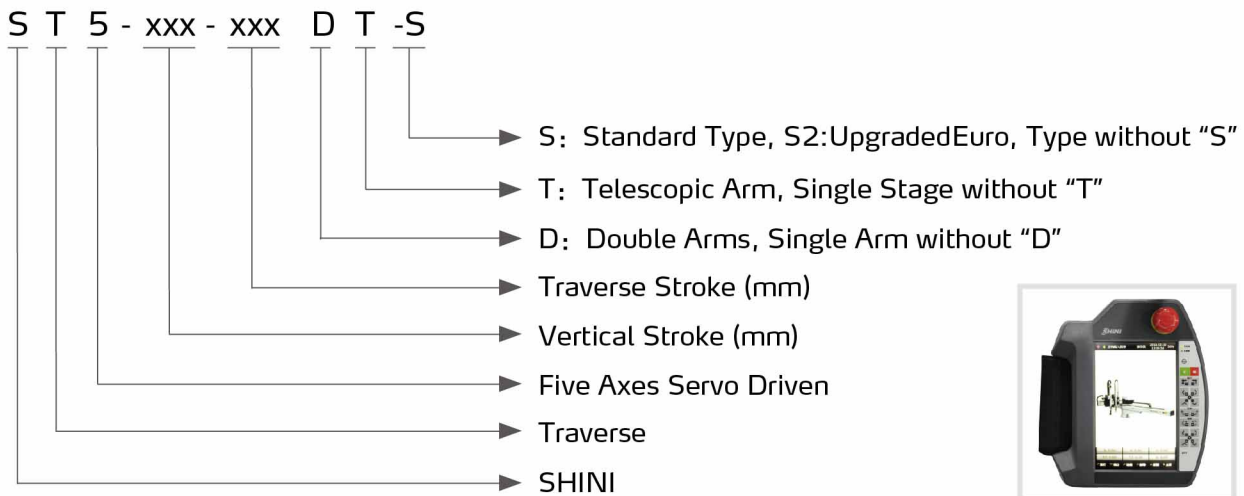
Standard Five-Axis Servo Driven Robot

ST5-900-1600DT-S2



Refer carefully to this manual before operation.

■ Coding Principle



Home Page

■ Features

● Precision

All linear movements are driven by heavy duty servo motors with cooperation of precise linear guide rails and high power V belts; fast, silent, and precise. Wrist mechanism employs pneumatic driven rack and pinion system, which accomplishes smooth, stabled and precise flipping motion. Vertical arm with telescopic design efficiently minimizes the cycle time and height of the robot.

● Safety

The travel limit of the X, Y, and Z-axis are with anti-collision devices. It can effectively prevent operation out of control. Complete dual protection function with the soft and hard limit. Ensure the safe operation of injection molding machine and travel robot. The design of I / O short-circuits protection can effectively prevent the circuit board from damage due to an electrical short circuit.

● Intelligence

7.0 inch high definition TFT touch screen. The USB can be used to upgrade the manual controller and mainboard, download program data, and the open program teaching, 8BG memory, and independent dual 16-bit IO expansion board can expand up to 4 IO boards. The hardware used multi-layer PCB and multi-rank high precision electrical modular, strong anti-interference ability. Hardware protect function, each signal output with intelligent detection, avoid short-circuit, overload and high temperature. Base on the VARAN BUS technology, the system can be extended, strong adaptability and flexibility. Teach modules with stacking and matrix locate functions, support conditional judgment, loop control, signal waiting and others logic instructions.

● User Friendly

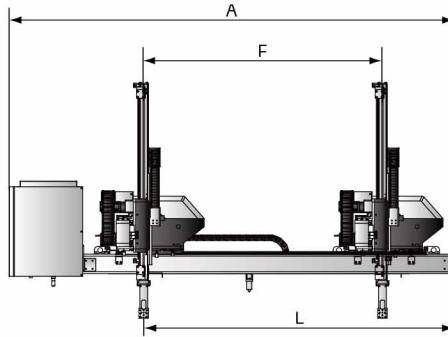
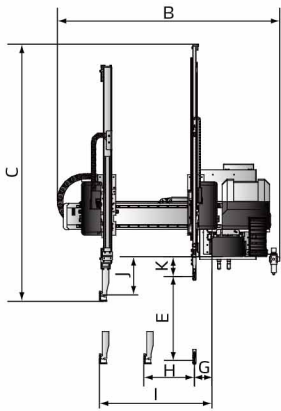
Multi-languages system and reserved auxiliary equipment slots able to support our global clients' need.

■ Application

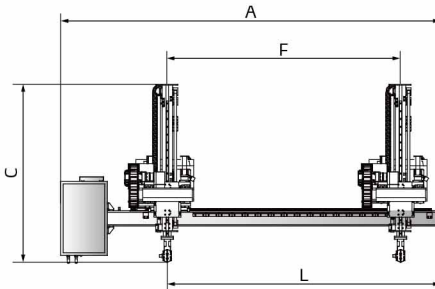
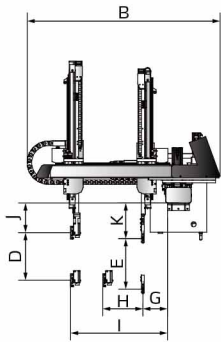
The ST5-S series robot is designed for rapid and precise removal of products from injection molding machine, and place them at desired locations. Standard and telescopic arm(s) are selectable to cooperate with 2-plate mold or hot runner system. Capable of arranging, stacking, quality checking and in mold placement. Suitable for injection molding machine under 850T clamp force.

ST5-S Series

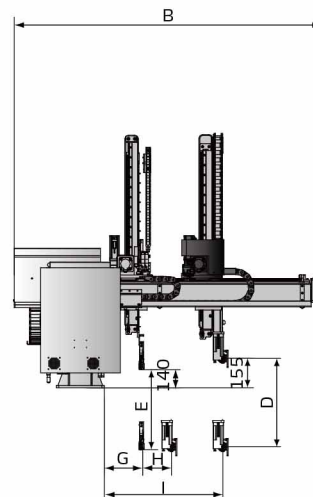
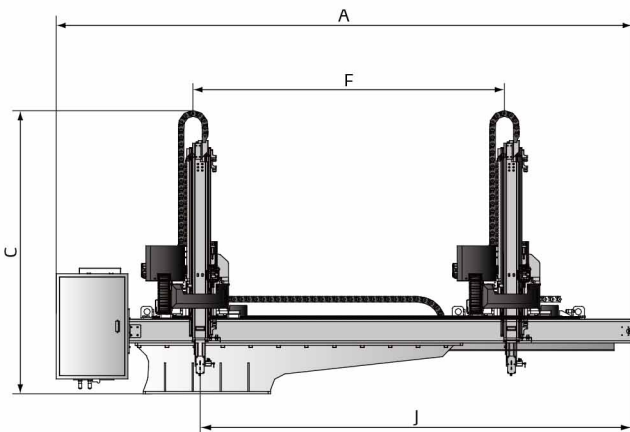
Outline Drawings



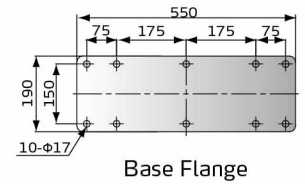
5-axis servo with single kick-stroke beam



Five axes servo small telescopic (bracket type) robot arm



Medium Five Axes Servo Telescopic (Movable-beam type)



Base Flange



■ Specifications

Model(ST5)		700-1200D-S2	700-1400D-S2	900-1600DT-S2	1100-1800DT-S2
Robot Type		Single kick stroke beam	Single kick stroke beam	Single kick stroke beam	Small size robot with frame type beam
IMM (ton)		50-80	80-160	220-260	320-400
Traverse Stroke (mm)		1200	1400	1600	1800
Crosswise Stroke (mm)	Main Arm	370	370	420	650
	Sub Arm	370	370	420	650
Vertical stroke (mm)	Main Arm	700	700(800)	900(1000)	1100(1200)
	Sub Arm	750	750(850)	950(1050)	1100(1200)
Max Load (with tool) (kg)		3	3	5	6
Min Pick-out Time (sec)		1.3	1.3	1.3	1.5
Min Cycle Time (sec)		5.2	5.2	5.5	6.2
Air Pressure (bar)		4~6	4~6	4~6	4~6
Max. Air Consumption (NL/cycle) *		5	5	4	4
Weight (kg)		260	280	310	340
Dimensions (mm)	A	2230	2560	2760	3010
	B	1250	1390	1490	1710
	C	1470	1465(1565)	1300(1350)	1490(1540)
	D	700	700(800)	900(1000)	1100(1200)
	E	750	750(850)	950(1050)	1100(1200)
	F	1200	1400	1600	1800
	G	145	145	185	160
	H	120	160	140	160
	I	580	650	700	1030
	J	110	175	240	240
	K	90	140	175	240
	L	1500	1820	2020	2150

- 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.
 "ABS" at the end of the model code stands for models of high precision.
 "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 60NL/min.
 4) () means option.

ST5-S Series

Specifications

Model(ST5)		700-1200D-S2	700-1400D-S2	900-1600DT-S2	1100-1800DT-S2
Robot Type		Single kick stroke beam	Single kick stroke beam	Single kick stroke beam	Small size robot with frame type beam
IMM (ton)		50-80	80-160	220-260	320-400
Traverse Stroke (mm)		1200	1400	1600	1800
Crosswise Stroke (mm)	Main Arm	370	370	420	650
	Sub Arm	370	370	420	650
Vertical stroke (mm)	Main Arm	700	700(800)	900(1000)	1100(1200)
	Sub Arm	750	750(850)	950(1050)	1100(1200)
Max Load (with tool) (kg)		3	3	5	6
Min Pick-out Time (sec)		1.3	1.3	1.3	1.5
Min Cycle Time (sec)		5.2	5.2	5.5	6.2
Air Pressure (bar)		4-6	4~6	4~6	4~6
Max. Air Consumption (NI/cycle) *		5	5	5	5
Weight (kg)		260	280	310	340
Dimensions (mm)	A	2230	2560	2760	3010
	B	1250	1390	1490	1710
	C	1470	1465(1565)	1300(1350)	1490(1540)
	D	700	700(800)	900(1000)	1100(1200)
	E	750	750(850)	950(1050)	1100(1200)
	F	1200	1400	1600	1800
	G	145	145	185	160
	H	120	160	140	160
	I	580	650	700	1030
	J	110	175	240	240
	K	90	140	175	240
	L	1500	1820	2020	2150

- Notes: 1) "M" stands for middle mold detector. (suitable for three-plate mold.)
 "EM12" stands for EUROMAP 12 communication interface.
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 2) Power supply: 1Φ, 200~240V, 50/60Hz.
 3) " * " Max. air consumption for vacuum device 60NI/min.
 4) () means option.



■ Specifications

Model(Medium telescopic)		ST5-1300-2000DT-S	ST5-1500-2200DT-S
Robot type		Medium size robot with frame type beam	Medium size robot with frame type beam
IMM (ton)		450 ~ 650	650 ~ 850
Traverse Stroke (mm)		2000	2200
Crosswise Stroke (mm)	Main Arm	630	750
	Sub Arm	630	750
Vertical stroke (mm)	Main Arm	1300	1500
	Sub Arm	1350	1550
Max Load (with tool) (kg)		10	12
Min Pick-out Time (sec)		3.2	3.5
Min Cycle Time (sec)		9	9.5
Air Pressure (bar)		4 ~ 6	4 ~ 6
Max. Air Consumption (NL/cycle) *		6	6
Weight (kg)		810	930
Dimensions (mm)	A	3650	3850
	B	2020	2140
	C	1650	1750
	D (max)	1300	1500
	E (max)	1350	1550
	F (max)	2000	2200
	G (min)	245	245
	H (min)	170	170
	I (max)	1100	1220
	J	2700	2900

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 "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 60NL/min.

We reserve the right to change specifications without prior notice.