

All-Axis Servo Driven Traverse Type Take-Out Robot

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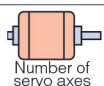
RC-30S/D

■ Features

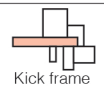


Clamping force

60 tf or less

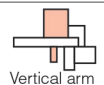
Number of
servo axes

3/5-axis



Kick frame

Single support type



Vertical arm

1-stage non-telescopic type

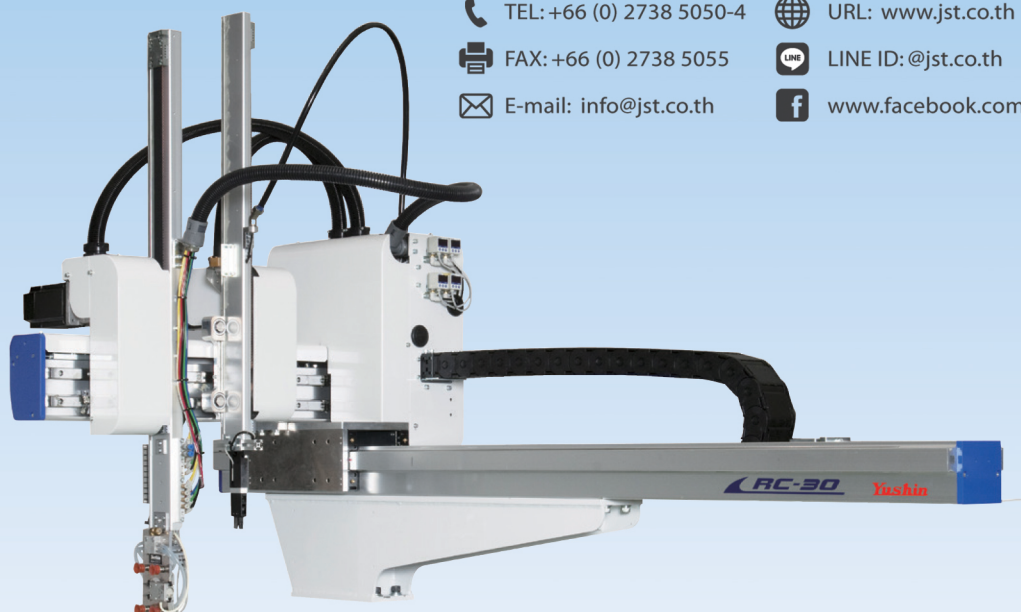


Controller

E-touch II

Equipped with E-touch II controller as standard

The RC-30 is the smallest model of Yushin's high-end RC series of servo-powered take-out robots built for speed, precision, reliability, and high productivity. Sized for ultra-small molding machines with clamping forces of 60 tf or less, the RC-30 is equipped with an array of functions designed to preserve the quality of delicate micro-molded products from gentle release of products to product separation by cavity. The RC-30 is ideal for handling precision products such as connectors or gears, where the tiniest scratch is cause for a defect. Available in S (main arm only) or D (main and sub arms) configurations.

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Standard Specifications

Power source	Driving method	Control method	Air pressure	Maximum air pressure	Wrist flip angle
Single phase AC200V/220V 50/60Hz	Digital servo motor 3/5-axis	Micro computer control	0.49MPa	0.70MPa	90 deg.

Model	Maximum power consumption	Traverse stroke (mm)	Kick stroke (mm)		Vertical stroke (mm)		Air consumption (Nℓ/cycle)	Maximum payload (kg)	Clamping force (tf)	Main unit weight (kg)
			Main arm	Sub arm	Main arm	Sub arm				
RC-30S	S type 1.7kVA AC200V 8.5A	900 [1200]	320 《470》*	—	450	—	3	2	60 or less	116
RC-30D	D type 2.2kVA AC200V 10.8A	[1600]*	280 《430》*	280 《430》*		550				130

S: Equipped with main arm only D: Equipped with main and sub arms

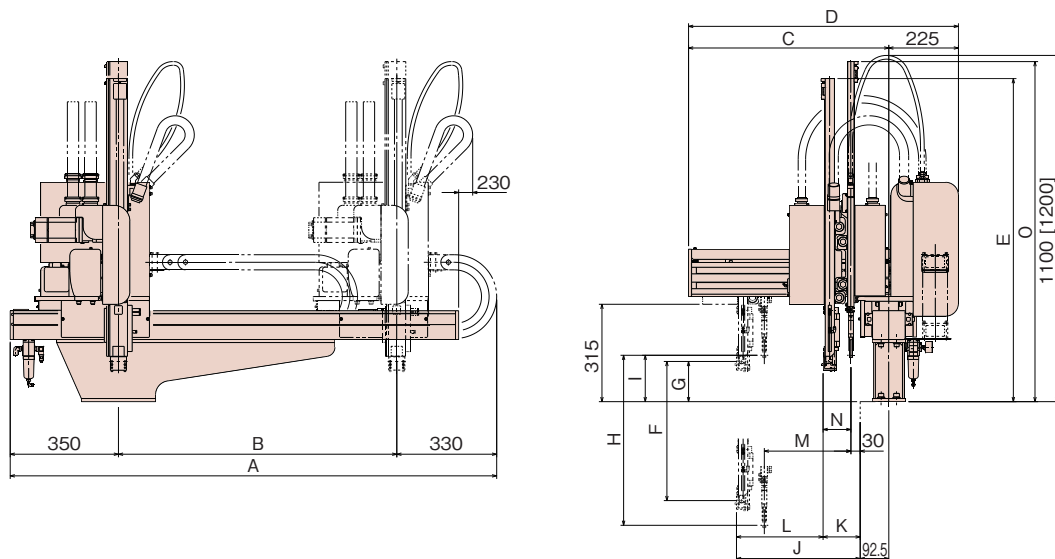
[]: Extended traverse stroke 《 》: Extended kick stroke

Maximum payload includes the end-of-arm tool.

Payload varies depending on the take-out robot speed setting.

* Kick stroke dimensions exclusively for models with extended traverse stroke of 1600 mm.

Dimensions (mm)



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
RC-30S	1580 [1880] [2280]	900 [1200] [1600]	648 《798》	873 《1023》	1045	450	130	—	—	400 《550》	80	320	—	—	—
RC-30D								550	150	120	280 《430》	280 《430》	90	1100	

[]: Extended traverse stroke 《 》: Extended kick stroke

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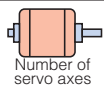
RC-70S/D

■ Features

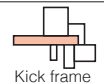


Clamping force

30–80 tf

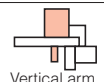
Number of
servo axes

3/5-axis



Kick frame

Single support type



Vertical arm

1-stage non-telescopic type



Controller

E-touch II

Equipped with E-touch II controller as standard

The RC-70 is another power-packed small model in Yushin's high-end RC series of servo-driven take-out robots. Like the smaller RC-30, the RC-70 is a single-stage (non-telescopic) type robot built for speed, precision, reliability, and high productivity. The RC-70 is suitable for small 30 to 80 tf molding machines and is available in S (main arm only) or D (main and sub arms) configurations.



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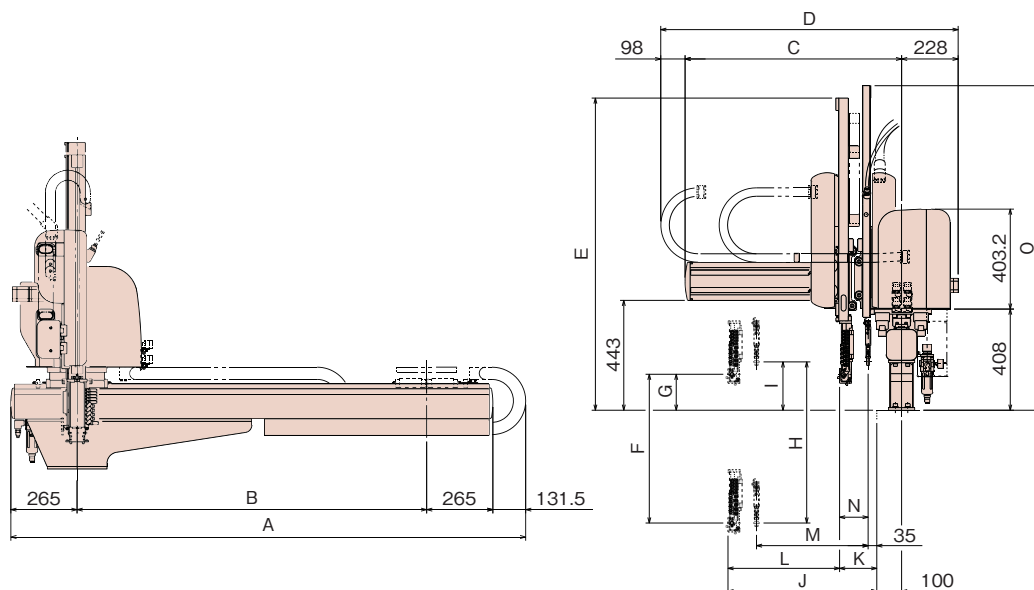
Standard Specifications

Power source	Driving method	Control method	Air pressure	Maximum air pressure	Wrist flip angle
Single phase AC200V/220V 50/60Hz	Digital servo motor 3/5-axis	Micro computer control	0.49MPa	0.70MPa	90 deg.

Model	Maximum power consumption	Traverse stroke (mm)	Kick stroke (mm)		Vertical stroke (mm)		Air consumption (Nℓ/cycle)	Maximum payload (kg)	Clamping force (tf)	Main unit weight (kg)
			Main arm	Sub arm	Main arm	Sub arm				
RC-70S	S type 0.9kVA AC200V 4.3A	1400 [1700]	500	—	600 <700>	—	3	3	30–80	195
RC-70D	D type 1.1kVA AC200V 5.5A		450	450		650 <750>				210

S: Equipped with main arm only D: Equipped with main and sub arms
 []: Extended traverse stroke < >: Extended vertical stroke
 Maximum payload includes the end-of-arm tool.
 Payload varies depending on the take-out robot speed setting.

Dimensions (mm)



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
RC-70S	2061.5 [2361.5]	1400 [1700]	873	1199	1259 <1363>	600 <700>	145	—	—	600	100	500	—	—	—
RC-70D								650 <750>	195		150	450	450	115	1309 <1413>

[]: Extended traverse stroke < >: Extended vertical stroke

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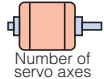
RCII-100S/D, RCII-150S/D
RCII-250S/D, RCII-400S/D

■ Features

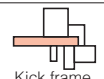


Clamping force

80–550 tf

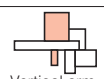
Number of
servo axes

3/5-axis



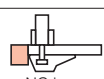
Kick frame

Dual support type



Vertical arm

2-stage telescopic type



NC box

On robot body

E-touch
Controller

E-touch II

Four popular models from Yushin's high-end RC series of servo-driven take-out robots, designed for speed, precision, and production efficiency.

● Speed

Completely redesigned arm and kick units dramatically reduce take-out time compared to previous models.

● Reliability

Increased rigidity of the take-out robot and vibration damping applied to the arm delivers steady take-out and release action.

● Efficiency

The standard-equipped ECO Vacuum reduces air consumption while manipulating molded parts to lower operating costs for the user. [See P82](#)

● E-touch II Controller

The RC series' advanced E-touch II controller features a 10.4-in. full-color touch screen for easy, intuitive operation. [See P77-78](#)



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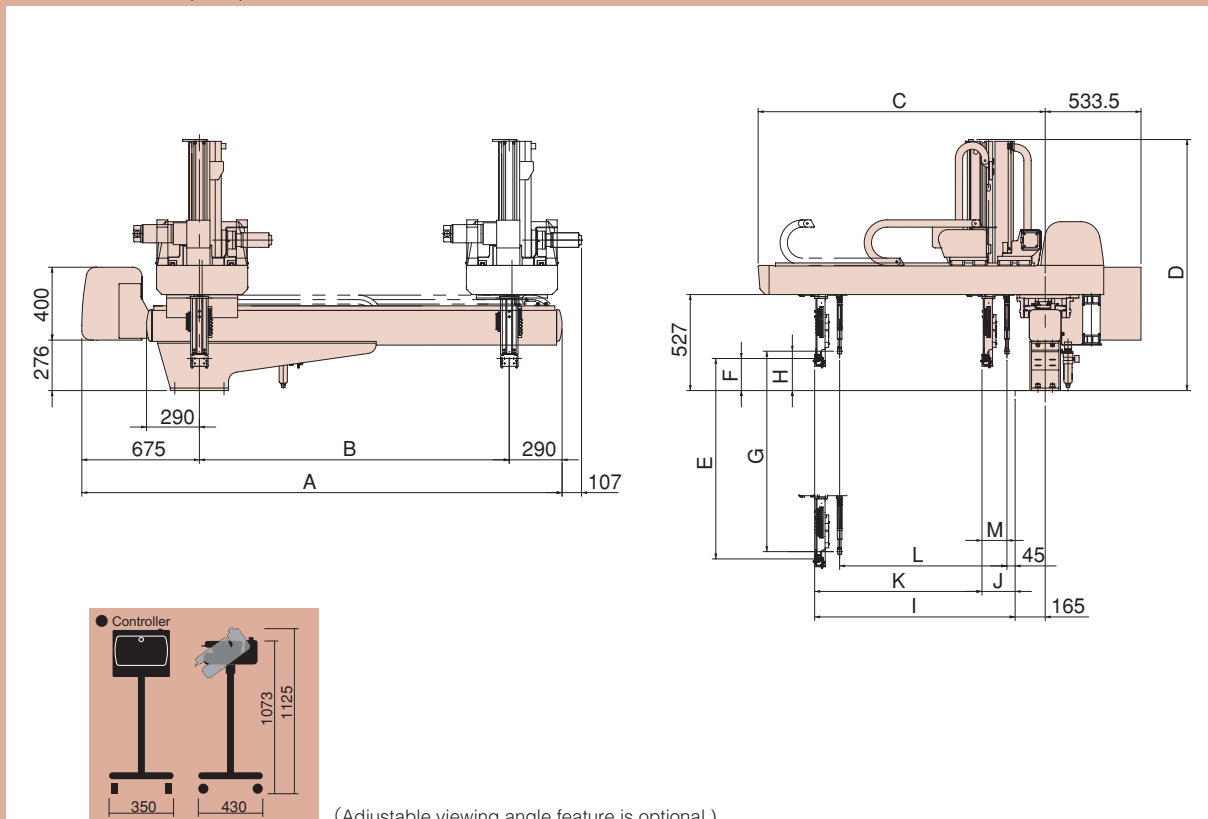
Specifications and Dimensions (mm)

Power source	Maximum power consumption		Driving method	Control method	Air pressure	Maximum air pressure	Wrist flip angle
	S	D					
3 phase AC200V/220V 50/60Hz	S type 2.7kVA AC200V 7.6A	D type 3.6kVA AC200V 10.4A	Digital servo motor 3/5-axis	Micro computer control	0.49MPa	0.70MPa	90 deg.

Model	Traverse stroke (mm)		C	D	Vertical stroke Main arm		F	Vertical stroke Sub arm		H	I	J	Kick stroke Main arm	Kick stroke Sub arm	M	Air consumption (N ℓ /cycle)	Maximum payload (kg)	Main unit weight (kg)		
	A	B*			E	G		K	L											
RC II-100S	2065	[2465] [2665]	1100	1180	[1500] [1700]	700	300	—	[850] [950]	—	700	117	583	—	—	6	5 《11》	385		
RC II-100D		[2865] [3165] [3465]			[1900] [2200] [2500]			[1380] [1480] [1605]	[1100] [1300] [1550]			700	[1300] [1550]	335	177			523	523	132
RC II-150S	2465	[2665]	1500	1255	[1305] [1480] [1605]	850	300	—	[950] [1100]	—	850	117	583	—	—			410		
RC II-150D		[2865] [3165] [3465]			[1900] [2200] [2500]			[1380] [1480] [1605]	[1100] [1300] [1550]			850	[1300] [1550]	335	177				523	523
RC II-250S		[3165] [3465]	[2200] [2500]	1325	1305	[1380] [1480] [1605]		950	[1100] [1300] [1550]	—	[1100] [1300] [1550]	850	117	733	—				—	414
RC II-250D		[3165] [3465]	[2200] [2500]	1325	1305	[1380] [1480] [1605]		950	[1100] [1300] [1550]	950	[1300] [1550]		335	177	673				673	132
RC II-400S	2665	[2865] [3165]	1700	1575	[1900] [2200]	1100	176	—	[1300] [1550]	—	1100	122	978	—	—	8	10 《13》	433		
RC II-400D		[2865] [3165] [3465]			[1900] [2200] [2500]			[1480] [1605]	[1300] [1550]			1100	[1300] [1550]	216	182			918	918	137

S: Equipped with main arm only D: Equipped with main and sub arms
 []: Extended traverse stroke < >: Extended vertical stroke 《 》: Increased payload specification
 * Stanchion is standard equipment for 2200 mm or longer traverse stroke.
 Maximum payload includes the end-of-arm tool.
 Payload varies depending on the take-out robot speed setting.

Dimensions (mm)



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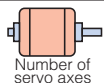
RCII-600S/D, RCII-800S/D, RCII-1300S/D

■ Features

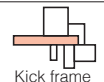


Clamping force

400–1600 tf

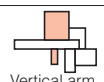
Number of
servo axes

3/5-axis



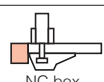
Kick frame

Dual support type



Vertical arm

2-stage telescopic type



NC box

On robot body

E-touch
Controller

E-touch II

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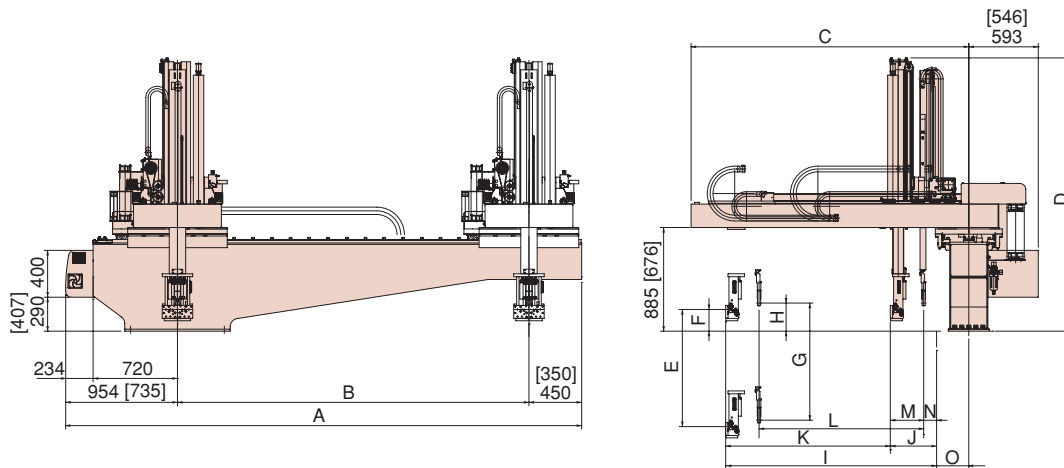
■ Specifications and Dimensions (mm)

Power source	Maximum power consumption		Driving method	Control method	Air pressure	Maximum air pressure	Wrist flip angle
	S	D					
3 phase AC200V/220V 50/60Hz	S type 2.7kVA AC200V 7.6A	D type 3.6kVA AC200V 10.4A	Digital servo motor 3/5-axis	Micro computer control	0.49MPa	0.70MPa	90 deg.

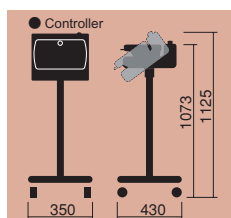
Model			Traverse stroke (mm)		C	D	Vertical stroke Main arm		F	Vertical stroke Sub arm		H	I	J	Kick stroke Main arm		Kick stroke Sub arm		M	N	O	Air consumption (N ℓ /cycle)	Maximum payload (kg)	Main unit weight (kg)
	A		B				E			G					K		L							
RC II -600S	3285	[3585]	2200	[2500]	1674	1700 [1825]	1300	〈1550〉	236	—	〈1550〉	—	1200	135	1065	—	—	—	185	22	15	625		
RC II -600D										1300													301	
RC II -800S	3404	[3904] [4404]	2000	[2500] [3000]	1895	2175	〈2300〉 〈2450〉	1550	〈2100〉 〈2500〉	330	—	〈1800〉 〈2100〉	—	1300	160	1140	—	—	—	330	44	25 〈35〉 〈50〉	1239	
RC II -800D		[4904] [5904]		[3500] [4500]																		1550	〈2500〉	385
RC II -1300S	4404	[4904] [5904]	3000	[3500] [4500]	2330	2300	〈2450〉 〈2650〉	1800	〈2100〉 〈2500〉	185	—	〈2100〉 〈2500〉	—	1800	225	1575	—	—	—	275	58	35 〈50〉	1455	
RC II -1300D																						1800		240

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 []: Extended traverse stroke < >: Extended vertical stroke < >: Increased payload specification
 Maximum payload includes the end-of-arm tool.
 Payload varies depending on the take-out robot speed setting.

■ Dimensions (mm)



[] is the dimensions of RCII-600



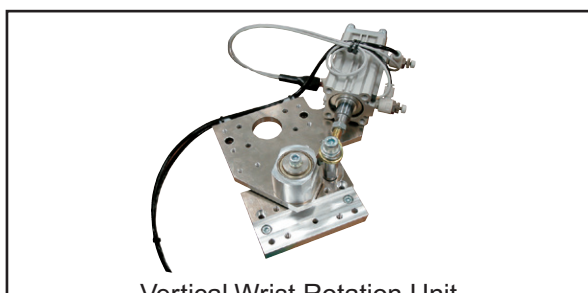
(Adjustable viewing angle feature is optional.)

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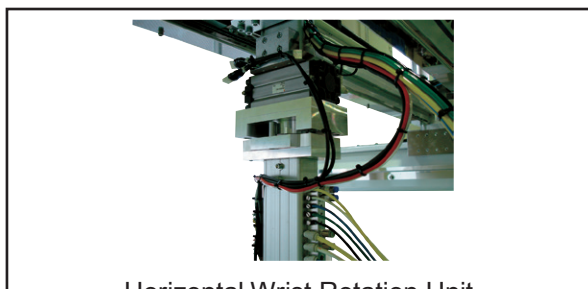
List of Options

RC/RC II series

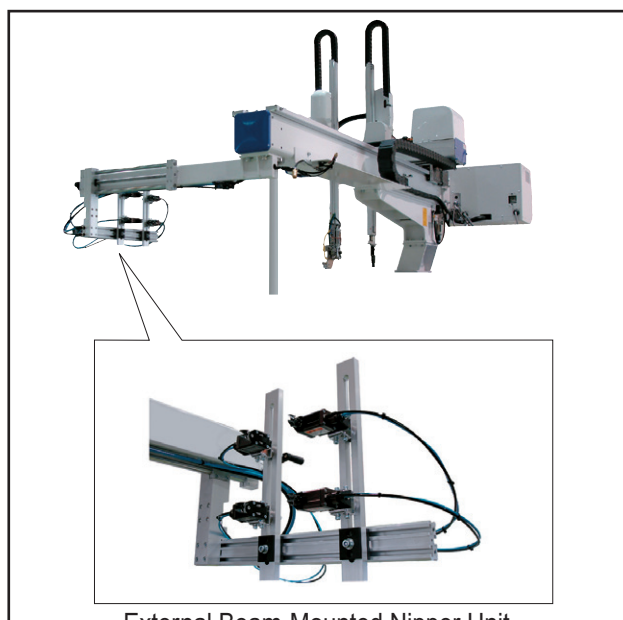
Options	Explanation of each option	Target models
Additional Analog Vacuum Circuit (w/ECO Vacuum)	Up to 3 additional ECO Vacuum-equipped analog vacuum circuits may be added to the single, standard-equipped circuit.	All robot types
Additional Part Chuck Pressure Circuit	1 or 3 additional pressure circuits may be added to the single, standard-equipped part gripper circuit.	
Additional Sprue Chuck Circuit	Allows the timing of the sprue release to be set via mode selection. 1 or more additional circuits may be added to the single, standard-equipped circuit.	
Pitch Revising Circuit	Allows operator to specify pitch of parts gripped by the end-of-arm tool.	
Sprue Cut Circuit	Allows nippers on board the end-of-arm tool to cut sprues. May not be equipped together with EOAT Gate Cut Circuit option.	
EOAT Gate Cut Circuit	Enables cutter within end-of-arm tool to approach the gate of a part and cut it. May not be equipped together with Sprue Cut Circuit option.	
Chuck Soft Grip Circuit	A pressure reducing valve is added to adjust chuck grip and prevent deformation of molded products.	
Vertical Wrist Rotation Unit (incl. detection function)	Adding this unit to the wrist-flip mechanism allows the orientation of released products to be changed.	
Horizontal Wrist Rotation Unit (incl. detection function)	Adding this unit to the main arm wrist allows the orientation of released products to be changed.	
NC (Numerical Control) Servo Wrist Units	These NC-servo powered units replace a robot's standard wrist-flip unit to enable precision control and motion comparable to an articulated robot. See P85-88	
EOAT Quick-Change Unit	Allows for instant attachment/detachment of end of-arm tool and its pneumatic and wiring connections. See P83-84	
EOAT One-Touch Quick-Release Fitting	Allows for fast manual attachment/detachment of end-of-arm tool.	
Signal Light/Signal Tower	Colored lights indicate status of the robot.	
External Beam-Mounted Nipper Unit	After removal from the mold, gated products may be inserted into this beam-mounted external nipper unit which separates the gate from the products.	RC-70 RC II -100-400
Maintenance Step	A ladder and stage for maintenance work can be installed on the robot.	RC II -800-1300
E-Force Static Electricity Eliminator	Eliminates the static electricity charge of plastic parts, helping repel dust and particulates.	All robot types
Ascent Limit Product Verification	After product take-out, product presence is verified at the ascent limit position by a remote-mounted limit switch.	
Increased Maximum Payload	Power along the vertical axis is increased, enabling the robot to handle heavier payloads.	
Increased Wrist Flip Torque	1.4 times more wrist flip torque, for applications where the end-of-arm tool is heavy or attached off-center.	
8-Pin Stocker Unit Connector	Metal connector which allows robot to interface with Yushin-made stocker unit.	
Reject Circuit	After receiving a "defect product" signal from the molding machine, robot releases the defective part at a position separate from the ordinary parts.	
Initial Shots Discharge Motion	At the start of auto operation, for a set number of shots the robot automatically places parts at a position separate from the ordinary parts.	



Vertical Wrist Rotation Unit



Horizontal Wrist Rotation Unit



External Beam-Mounted Nipper Unit

Options	Explanation of each option	Target models
Wait on Traverse	While the mold is closed, if the robot is unable to wait above the mold (due to obstacles, etc.), a second wait position may be designated at another point along the traverse axis.	All robot types
High-Cycle Motion	Traverse and wrist flip motions are performed simultaneously to shorten the robot's overall cycle time.	
Under-Cut Motion	Up to 3 additional teaching positions may be programmed in order to extract products from an under-cut mold.	
Sampling Motion	During auto operation, the robot will place products at a Sample Release position once every set number of molding cycles.	
Dropped Product Detection	After extracting products, robot continuously verifies its hold on the products until it finally releases them.	
Ascent Limit Product Verification	While in auto operation, if the robot fails to extract products it immediately error-stops at its ascent limit. Without this option, the robot completes one full cycle before it error-stops.	
Wait for Descent Order	When downstream machinery is not ready, the robot waits for a set interval for the Descent Order signal to turn ON. In the event it does not receive the Descent Order, the user may mode-select whether the robot immediately error-stops the line, or if it just continues the cycle and releases parts.	
Low Air Pressure Detection	The robot displays an error if air pressure drops below a set value.	
Pause for Mold Open	Used for manual ejection.	
Flying Cycle Start	The timing to output the Cycle Start signal to the molding machine is adjustable.	
Communication with Molding Machine	The robot exchanges information such as mold numbers with the molding machine, which shortens set-up time.	
Centralized Manual Lubrication System	Delivers lubricant from manual pump to necessary areas.	
Centralized Automatic Lubrication System	Delivers lubricant from electric pump to necessary areas.	
Flexible Teaching	Software kit which allows users to create robot motion programs on their PC or on their E-touch II controller.	
Multilingual Display	User may select one of twelve languages to display on the controller: Japanese, English, Chinese, Korean, Spanish, Dutch, German, Portuguese, Slovak, Polish, French, or Italian.	
Free Casing Setting	Up to 250 release positions may be designated per pallet.	
3rd Party Program Installation	PC-compatible programs other than the robot control program may be installed and run on the E-touch II controller.	
Integrated Exhaust Control	This option, intended for clean-room environments, greatly reduces the exposure of molded products to possible exhaust-borne particulates.	
High-Cycle Traverse	Traverse axis is adapted to speedier, high-cycle use by installing a larger servo motor.	
Traverse Beam Stanchion	Support stanchion is installed on the end of extended-length traverse beams or when extra precision is necessary when placing products.	
Custom Color	Robot body, frame caps, and control boxes will be painted with a color specified by the customer.	
Protective Sheet for Touch Screen	A transparent cover sheet to protect the controller's touch screen.	
Integrated Casing Counter Reset	When the stocker completes its return to origin, the take-out robot resets its casing counter and releases at the initial release position.	

