All-Axis Servo Driven Traverse Type Take-Out Robot

All-Axis Servo Driven Traverse Type Take-Out Robot
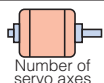
YC-30S/D

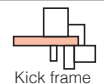## ■Features

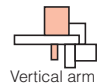|	
Clamping force	60 tf or less
Number of servo axes	3/5-axis
Kick frame	Single support type
Vertical arm	1-stage non-telescopic type
Controller	E-touch compact-YC

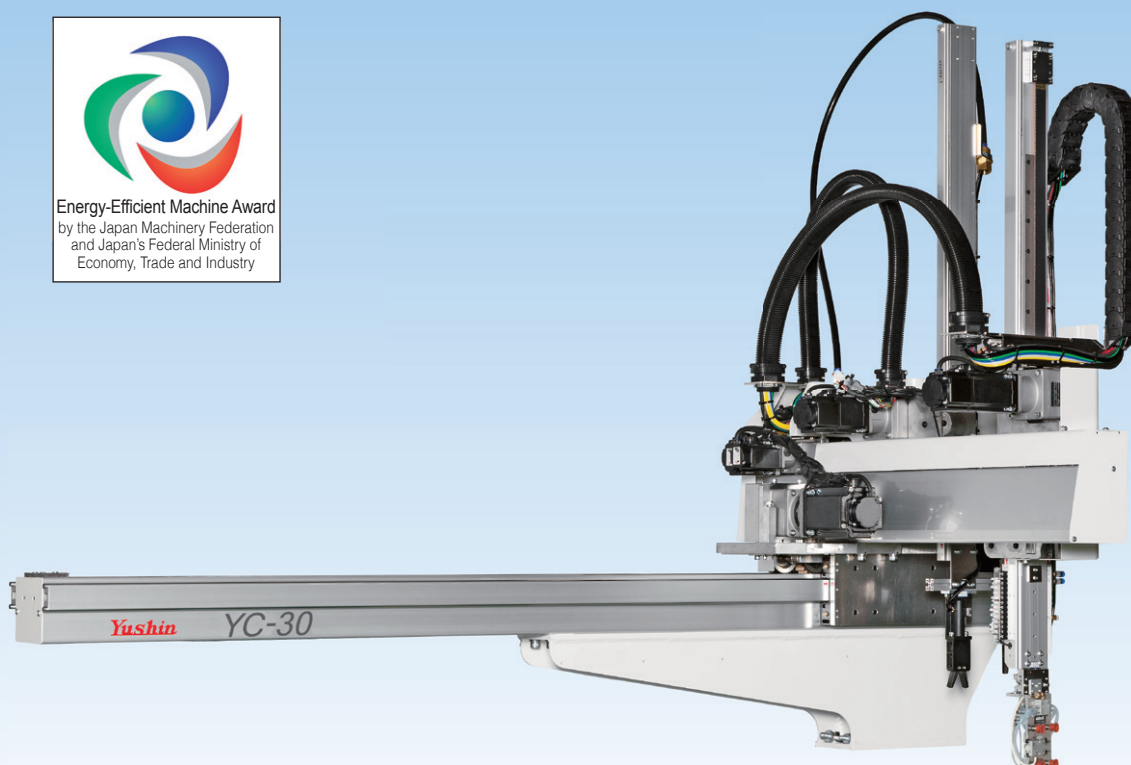### All-Axis Servo Driven Take-Out Robot for Energy-Smart Manufacturers

Compared to older models, YC series robots benefit from much lighter components and structures by incorporating design optimization technology. This weight reduction results in significantly better energy efficiency and longevity. Design optimization also targeted factors like natural oscillation and damping characteristics to greatly reduce arm vibration. The YC-30 is sized for 60 tf or less molding machines.

E-touch compact-YC PAT.

- ● ECO Vacuum　P82
- ● ECO Monitor　P79
- ● Predictive Maintenance*

Standard equipment

＊Continuously monitors robot during operation and alerts operator with a message if potential trouble symptoms are detected. This function elevates maintenance from preventative to predictive.

Energy-Efficient Machine Award
by the Japan Machinery Federation and Japan's Federal Ministry of Economy, Trade and Industry

Yushin　YC-30

PAT
PAT.P

All-Axis Servo Driven Traverse Type

Single-Axis Servo Driven Traverse Type

Swing Type

Side Entry Type

Take-Out Robot for Vertical Molding Machine

Stock System

Heartful Technology

Yushin

All-Axis Servo Driven Traverse Type

Single-Axis Servo Driven Traverse Type

Swing Type

Side Entry Type

Take-Out Robot for Vertical Molding Machine

Stock System

■ 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) Main arm	Kick stroke (mm) Sub arm	Vertical stroke (mm) Main arm	Vertical stroke (mm) Sub arm	Air consumption (Nℓ/cycle)	Maximum payload (kg)	Clamping force (tf)
YC-30S	1.9kVA AC200V 9.3A	900 [1200] [1600]*	320 《470》*	—	450 〈550〉	—	2.3 (ECO vacuum OFF)	2	60 or less
YC-30D	2.2kVA AC200V 10.8A		280 《430》*	280 《430》*		550 〈650〉	0.8 (ECO vacuum ON)		

S: Equipped with main arm only   D: Equipped with main and sub arms
[ ]: Extended traverse stroke 《 》: Extended kick stroke 〈 〉: Extended vertical 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)

449
314

B

195
330

125

A

D

C   225

E

345

I

G

H

F

N

M   30

O

202

L   K

J   92.5
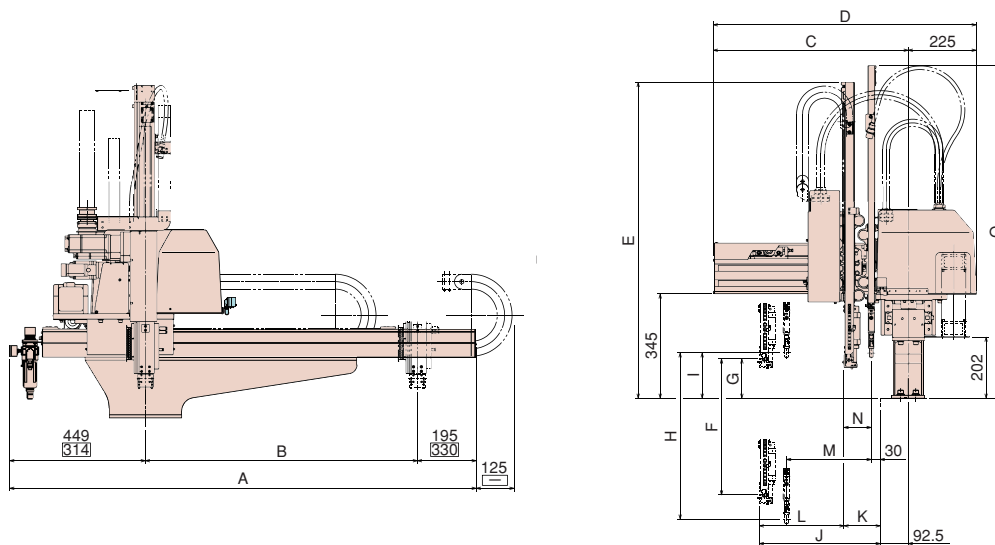
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
YC-30S	1543.5 [1843.5] [2243.5]	900 [1200] [1600]	645 《795》	870 《1020》	1045 《1145》	450 〈550〉	130	—	—	400 〈550〉	80	320 《470》	—	—	—
YC-30D								550 〈650〉	150		120	280 《430》	280 《430》	90	1100 〈1200〉

[ ]: Extended traverse stroke
〈 〉: Extended vertical stroke
《 》: Extended kick stroke
▭: For rear-side models

All-Axis Servo Driven Traverse Type Take-Out Robot
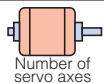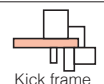
All-Axis Servo Driven Traverse Type

Single-Axis Servo Driven Traverse Type

Swing Type

Side Entry Type

Take-Out Robot for Vertical Molding Machine

Stock System

All-Axis Servo Driven Traverse Type Take-Out Robot

YC-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 compact-YC
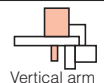
All-Axis Servo Driven Take-Out Robot for Energy-Smart Manufacturers

Compared to older models, YC series robots benefit from much lighter components and structures by incorporating design optimization technology. This weight reduction results in significantly better energy efficiency and longevity. Design optimization also targeted factors like natural oscillation and damping characteristics to greatly reduce arm vibration. The YC-70 is sized for 30-80 tf molding machines.
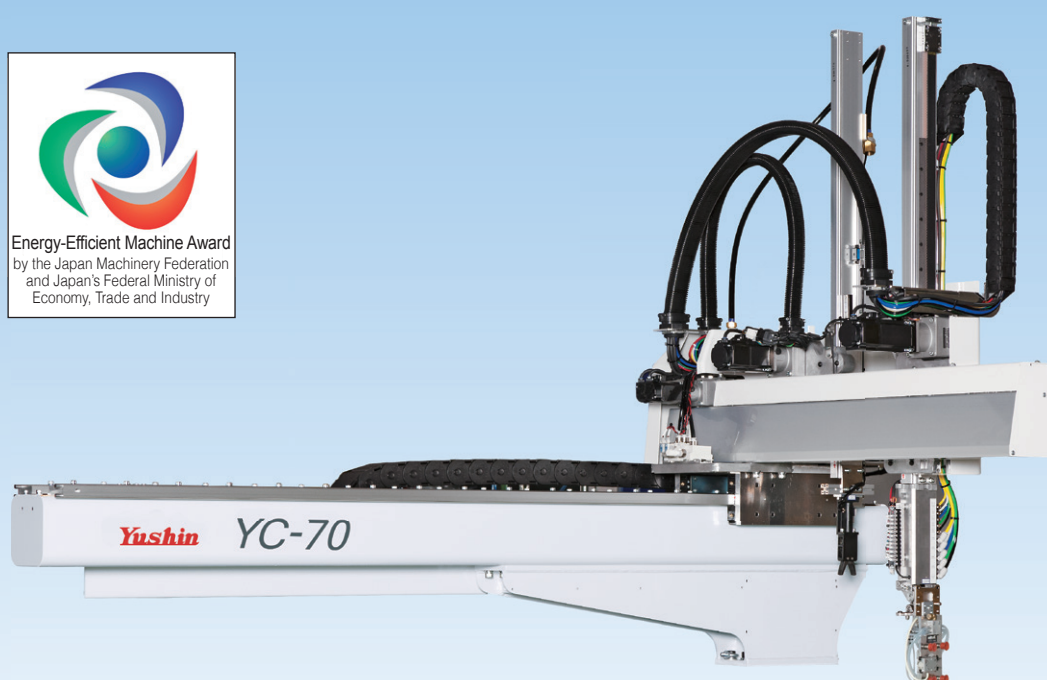
E-touch compact-YC PAT.

- ● ECO Vacuum P82
- ● ECO Monitor P79
- ● Predictive Maintenance*

Standard equipment

*Continuously monitors robot during operation and alerts operator with a message if potential trouble symptoms are detected. This function elevates maintenance from preventative to predictive.

Energy-Efficient Machine Award
by the Japan Machinery Federation and Japan's Federal Ministry of Economy, Trade and Industry

Yushin **YC-70**

PAT
PAT.P

Heartful Technology

Yushin

All-Axis Servo Driven Traverse Type

Single-Axis Servo Driven Traverse Type

Swing Type

Side Entry Type

Take-Out Robot for Vertical Molding Machine

Stock System

■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 arm	Sub arm	Main arm	Sub arm			
YC-70S	1.4kVA AC200V 7.0A	1400 [1700]	500	—	600 〈700〉	—	3.2 (ECO vacuum OFF)	3	30–80
YC-70D	1.7kVA AC200V 8.5A		450	450		650 〈750〉	1.0 (ECO vacuum ON)		

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)
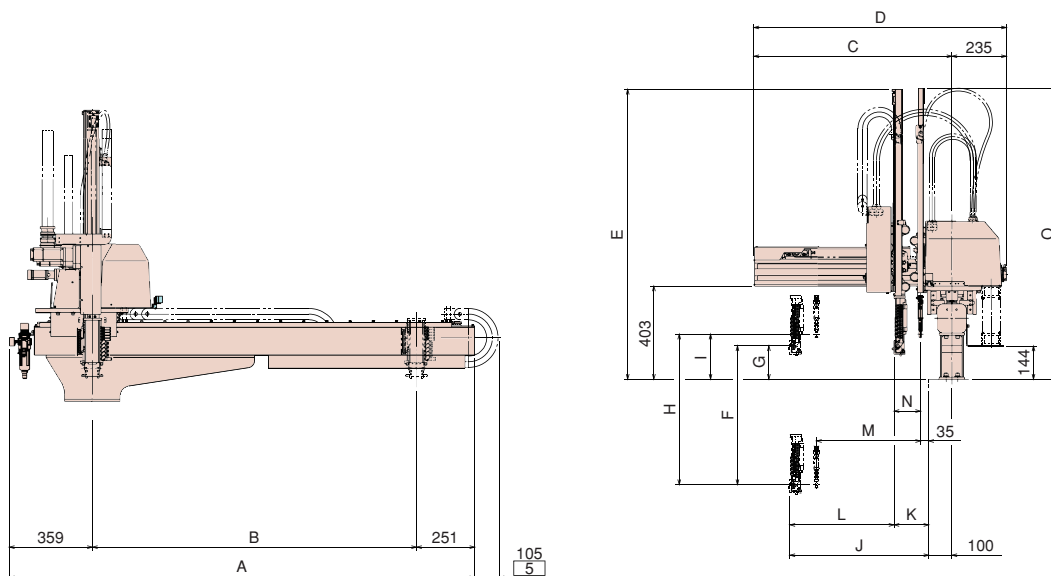
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
YC-70S	2010 [2310]	1400 [1700]	855	1090	1253 〈1353〉	600 〈700〉	145	—	—	600	100	500	—	—	—
YC-70D								650 〈750〉	195		150	450	450	115	1258 〈1358〉

〔　〕: Extended traverse stroke
〈　〉: Extended vertical stroke
▭ : For rear-side models

All-Axis Servo Driven Traverse Type Take-Out Robot
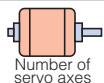
All-Axis Servo Driven Traverse Type Take-Out Robot

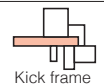# YC-100S/D, YC-150S/D, YC-250S/D

■Features

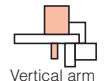|	
Clamping force	80–300 tf
Number of servo axes	3/5-axis
Kick frame	Single support type
Vertical arm	1-stage non-telescopic type
NC box	On robot body
Controller	E-touch compact-YC

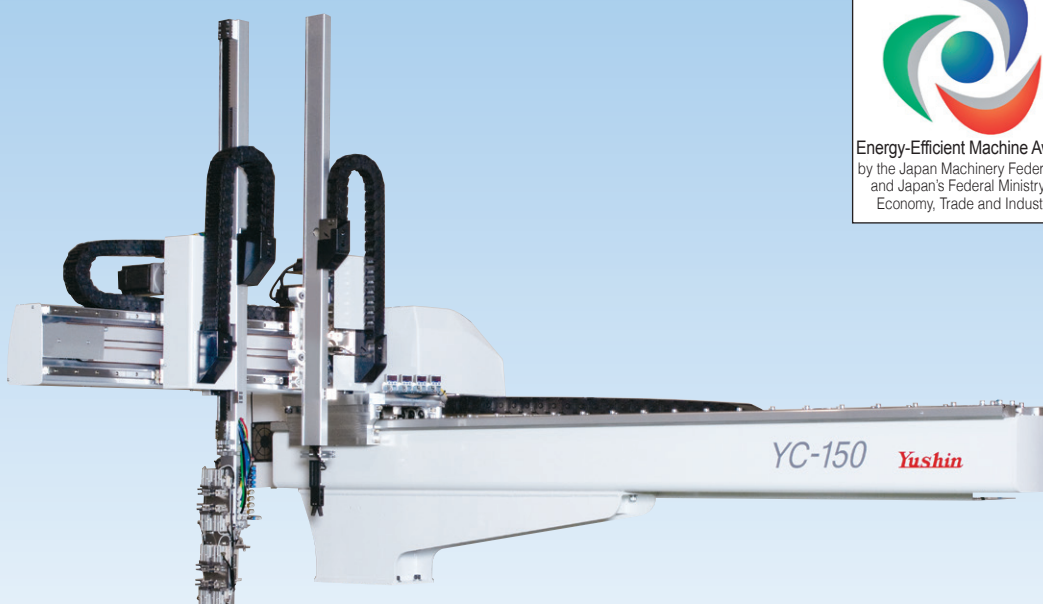## All-Axis Servo Driven Take-Out Robot for Energy-Smart Manufacturers

Compared to older models, YC series robots benefit from much lighter components and structures by incorporating design optimization technology. This weight reduction results in significantly better energy efficiency and longevity. Design optimization also targeted factors like natural oscillation and damping characteristics to greatly reduce arm vibration. The YC-100/150/250 is sized for 80-300 tf molding machines.

E-touch compact-YC PAT.

- ● ECO Vacuum P82
- ● ECO Monitor P79 Standard equipment
- ● Predictive Maintenance*

* Continuously monitors robot during operation and alerts operator with a message if potential trouble symptoms are detected. This function elevates maintenance from preventative to predictive.

Energy-Efficient Machine Award
by the Japan Machinery Federation and Japan's Federal Ministry of Economy, Trade and Industry

YC-150 Yushin

The CE specification is a special order. Please contact us.

PAT
PAT.P

All-Axis Servo Driven Traverse Type

Single-Axis Servo Driven Traverse Type

Swing Type

Side Entry Type

Take-Out Robot for Vertical Molding Machine

Stock System

Heartful Technology

Yushin

All-Axis Servo Driven Traverse Type

Single-Axis Servo Driven Traverse Type

Swing Type

Side Entry Type

Take-Out Robot for Vertical Molding Machine

Stock System

■ 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 arm	Sub arm	Main arm	Sub arm			
YC-100S	S type 1.9kVA AC200V 9.5A	1100 [1500] [1700] [1900] [2200] [2500]	625	–	650 ⟨800⟩	–	3.2 (ECO vacuum OFF) 1.3 (ECO vacuum ON)	5	80–130
YC-100D			540	540		700 ⟨850⟩			
YC-150S	D type 2.5kVA AC200V 12.5A	1500 [1700] [1900] [2200] [2500]	625	–	800 ⟨900⟩	–	3.5 (ECO vacuum OFF) 1.3 (ECO vacuum ON)		100–220
YC-150D			540	540		850 ⟨950⟩			
YC-250S			775	–	900 ⟨1050⟩	–	3.9 (ECO vacuum OFF) 1.6 (ECO vacuum ON)		180–300
YC-250D			690	690		950 ⟨1100⟩			

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)
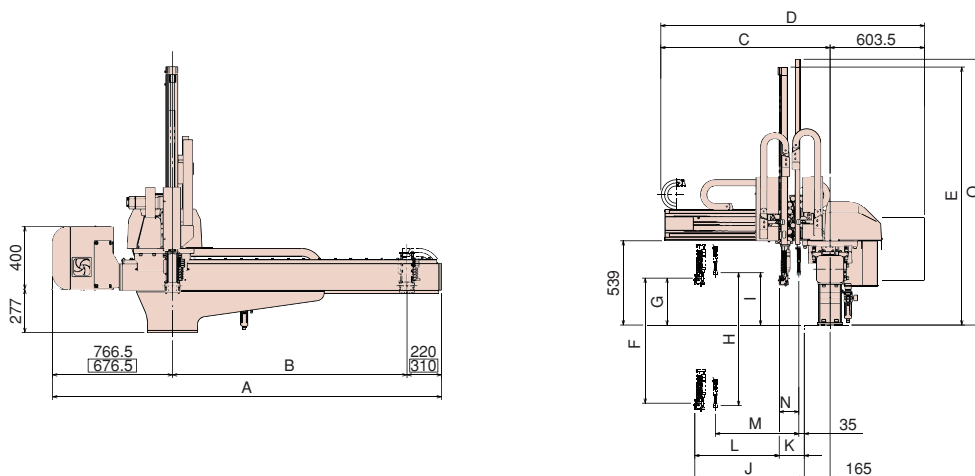
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
YC-100S	2086.5 [2486.5] [2686.5] [2886.5] [3186.5] [3486.5]	1100 [1500] [1700] [1900] [2200] [2500]	1082.5	1686	1498 ⟨1650⟩	650 ⟨800⟩	300	—	—	700	75	625	—	—	—
YC-100D								700 ⟨850⟩	335		160	540	540	125	1548 ⟨1700⟩
YC-150S	2486.5 [2686.5] [2886.5] [3186.5] [3486.5]	1500 [1700] [1900] [2200] [2500]			1650 ⟨1754⟩	800 ⟨900⟩		—	—		75	625	—	—	—
YC-150D								850 ⟨950⟩	335		160	540	540	125	1700 ⟨1804⟩
YC-250S			1232.5	1836	1754 ⟨1906⟩	900 ⟨1050⟩		—	—	850	75	775	—	—	—
YC-250D								950 ⟨1100⟩	335		160	690	690	125	1804 ⟨1956⟩

［ ］: Extended traverse stroke
⟨ ⟩: Extended vertical stroke
▭ : For rear-side models

All-Axis Servo Driven Traverse Type Take-Out Robot

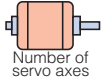# All-Axis Servo Driven Traverse Type Take-Out Robot

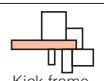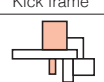# YCⅡ-100S/D, YCⅡ-150S/D, YCⅡ-250S/D

■Features

Clamping force	80–300 tf
Number of servo axes	3/5-axis
Kick frame	Single support type
Vertical arm	2-stage telescopic type
NC box	On robot body
Controller	E-touch compact-YC

All-Axis Servo Driven Take-Out Robot for Energy-Smart Manufacturers

Compared to older models, YC series robots benefit from much lighter components and structures by incorporating design optimization technology. This weight reduction results in significantly better energy efficiency and longevity. Design optimization also targeted factors like natural oscillation and damping characteristics to greatly reduce arm vibration. The YCⅡ-100/150/250 is sized for 80-300 tf molding machines.

E-touch compact-YC PAT.

- ● ECO Vacuum　P82
- ● ECO Monitor　P79
- ● Predictive Maintenance*

Standard equipment

* Continuously monitors robot during operation and alerts operator with a message if potential trouble symptoms are detected. This function elevates maintenance from preventative to predictive.

Energy-Efficient Machine Award
by the Japan Machinery Federation and Japan's Federal Ministry of Economy, Trade and Industry

YCⅡ-150　Yushin

The CE specification is a special order.
Please contact us.

PAT
PAT.P

Heartful Technology

Yushin

All-Axis Servo Driven Traverse Type

Single-Axis Servo Driven Traverse Type

Swing Type

Side Entry Type

Take-Out Robot for Vertical Molding Machine

Stock System

■ 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) Main arm	Kick stroke (mm) Sub arm	Vertical stroke (mm) Main arm	Vertical stroke (mm) Sub arm	Air consumption (Nℓ/cycle)	Maximum payload (kg)	Clamping force (tf)
YCII-100S	S type 1.9kVA AC200V 9.5A	1100 [1500] [1700] [1900] [2200] [2500]	578	–	700 〈850〉	–	5.2 (ECO vacuum OFF) 1.7 (ECO vacuum ON)	5	80–130
YCII-100D			518	518		700 〈850〉			
YCII-150S		1500 [1700] [1900] [2200] [2500]	578	–	850 〈950〉	–	5.6 (ECO vacuum OFF) 1.7 (ECO vacuum ON)		100–220
YCII-150D	D type 2.5kVA AC200V 12.5A		518	518		850 〈950〉			
YCII-250S			728	–	950 〈1100〉	–	5.9 (ECO vacuum OFF) 1.9 (ECO vacuum ON)		180–300
YCII-250D			668	668		950 〈1100〉			

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)
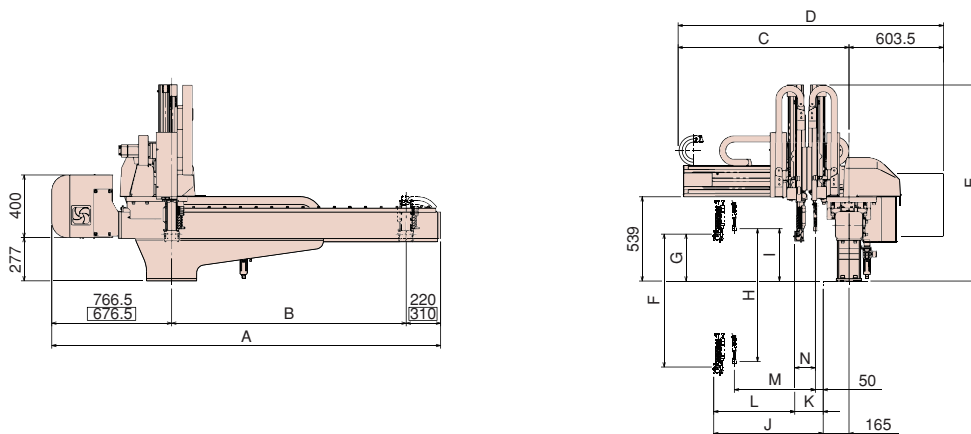
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
YCII-100S	2086.5 [2486.5] [2686.5] [2886.5] [3186.5] [3486.5]	1100 [1500] [1700] [1900] [2200] [2500]	1092.5	1696	1182 〈1254〉	700 〈850〉	300	—	—	700	122	578	—	—
YCII-100D								700 〈850〉	335		182	518	518	132
YCII-150S	2486.5 [2686.5] [2886.5] [3186.5] [3486.5]	1500 [1700] [1900] [2200] [2500]			1254 〈1310〉	850 〈950〉		—	—		122	578	—	—
YCII-150D								850 〈950〉	335		182	518	518	132
YCII-250S			1242.5	1846	1310 〈1382〉	950 〈1100〉		—	—	850	122	728	—	—
YCII-250D								950 〈1100〉	335		182	668	668	132

[ ]: Extended traverse stroke
〈 〉: Extended vertical stroke
▭: For rear-side models

All-Axis Servo Driven Traverse Type Take-Out Robot
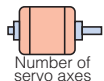
All-Axis Servo Driven Traverse Type Take-Out Robot

YCⅡ-400S/D, YCⅡ-600S/D-e

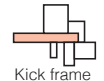### ■Features

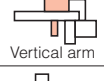|	
Clamping force	280–650 tf
Number of servo axes	3/5-axis
Kick frame	Dual support type
Vertical arm	2-stage telescopic type
NC box	On robot body
Controller	E-touch compact-YC

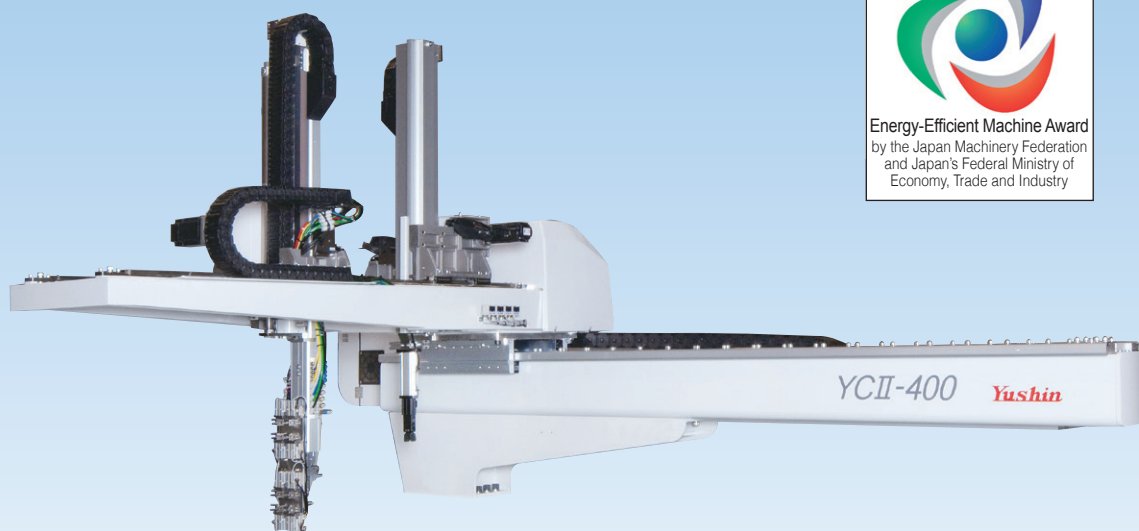## All-Axis Servo Driven Take-Out Robot for Energy-Smart Manufacturers

Compared to older models, YC series robots benefit from much lighter components and structures by incorporating design optimization technology. This weight reduction results in significantly better energy efficiency and longevity. Design optimization also targeted factors like natural oscillation and damping characteristics to greatly reduce arm vibration. The YCⅡ-400/600-e is sized for 280-650 tf molding machines.

E-touch compact-YC PAT.

- ● ECO Vacuum **P82**
- ● ECO Monitor **P79**
- ● Predictive Maintenance*

Standard equipment

* Continuously monitors robot during operation and alerts operator with a message if potential trouble symptoms are detected. This function elevates maintenance from preventative to predictive.

Energy-Efficient Machine Award
by the Japan Machinery Federation and Japan's Federal Ministry of Economy, Trade and Industry

YCⅡ-400 Yushin

The CE specification is a special order. Please contact us.

PAT
PAT.P

All-Axis Servo Driven Traverse Type

Single-Axis Servo Driven Traverse Type

Swing Type

Side Entry Type

Take-Out Robot for Vertical Molding Machine

Stock System

All-Axis Servo Driven Traverse Type

Single-Axis Servo Driven Traverse Type

Swing Type

Side Entry Type

Take-Out Robot for Vertical Molding Machine

Stock System

■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) Main arm	Kick stroke (mm) Sub arm	Vertical stroke (mm) Main arm	Vertical stroke (mm) Sub arm	Air consumption (Nℓ/cycle)	Maximum payload (kg)	Clamping force (tf)
YCⅡ-400S	S type 2.2kVA AC200V 11.0A	1700 [1900] [2200] [2500]	1000	–	1100 ⟨1300⟩	–	11.0 (ECO vacuum OFF)	10	280–450
YCⅡ-400D	D type 2.8kVA AC200V 14.0A		868	868		1100 ⟨1300⟩	7.4 (ECO vacuum ON)		
YCⅡ-600S-e	S type 2.2kVA AC200V 11.0A	2200 [2500]	1100	–	1300	–	17.0 (ECO vacuum OFF)		400–650
YCⅡ-600D-e	D type 2.8kVA AC200V 14.0A		968	968		1300	9.0 (ECO vacuum ON)		

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)
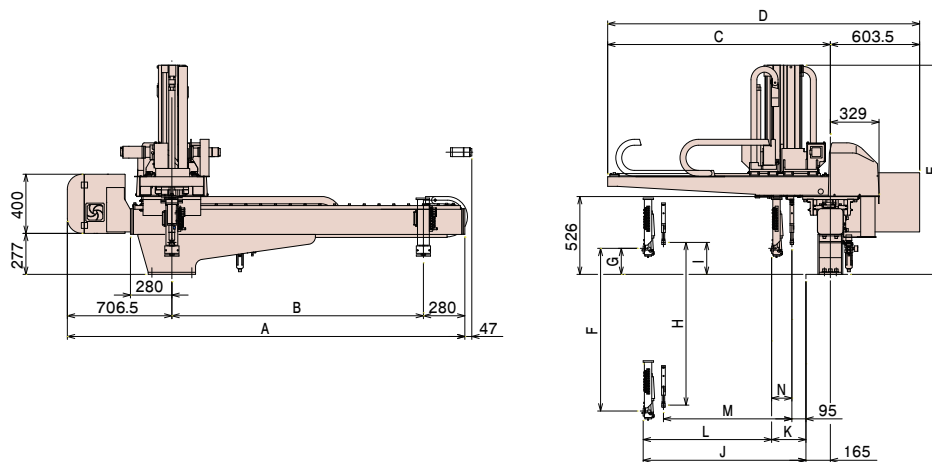
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
YCⅡ-400S	2686.5 [2886.5] [3186.5] [3486.5]	1700 [1900] [2200] [2500]	1505	2108.5	1414 ⟨1514⟩	1100 ⟨1300⟩	176	—	—	1100	100	1000	—	—
YCⅡ-400D								1100 ⟨1300⟩	216		232	868	868	137
YCⅡ-600S-e	3186.5 [3486.5]	2200 [2500]	1625	2228.5	1514	1300	86	—	—	1200	100	1100	—	—
YCⅡ-600D-e								1300	126		232	968	968	137

[   ]: Extended traverse stroke
⟨   ⟩: Extended vertical stroke

All-Axis Servo Driven Traverse Type Take-Out Robot
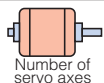
All-Axis Servo Driven Traverse Type

All-Axis Servo Driven Traverse Type Take-Out Robot

YCⅡ-600S/D, YCⅡ-800S/D-e

■Features

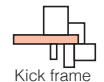|	
Clamping force	400–1000 tf
Number of servo axes	3/5-axis
Kick frame	Dual support type
Vertical arm	2-stage telescopic type
NC box	On robot body
Controller	E-touch compact-YC

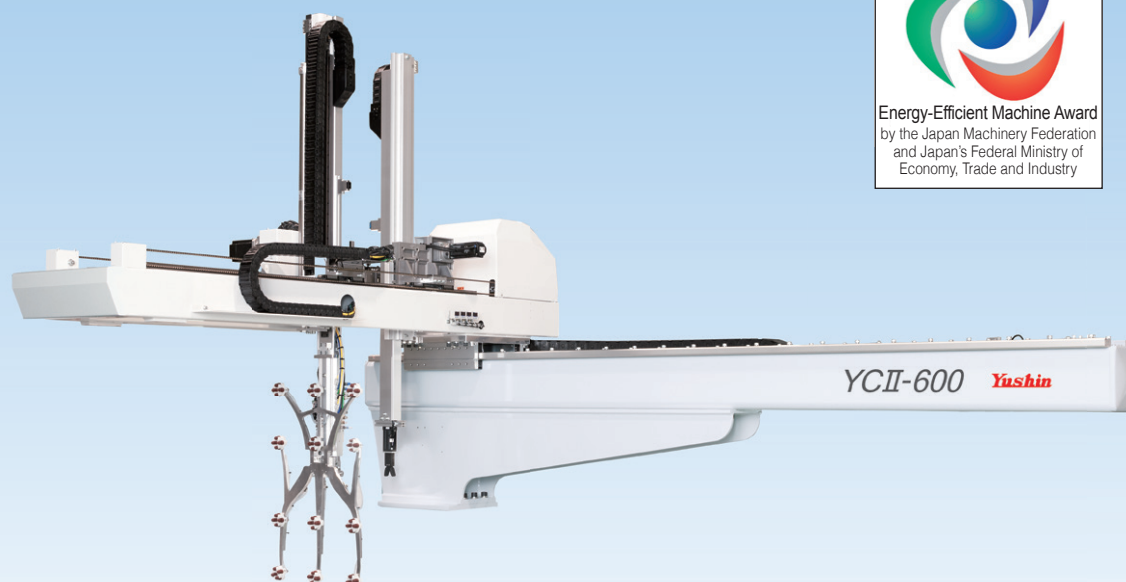## All-Axis Servo Driven Take-Out Robot for Energy-Smart Manufacturers

Compared to older models, YC series robots benefit from much lighter components and structures by incorporating design optimization technology. This weight reduction results in significantly better energy efficiency and longevity. Design optimization also targeted factors like natural oscillation and damping characteristics to greatly reduce arm vibration. The YCⅡ-600/800-e is sized for 400-1000 tf molding machines.

E-touch compact-YC PAT.

- ● ECO Vacuum **P82**
- ● ECO Monitor **P79**
- ● Predictive Maintenance*

Standard equipment

* Continuously monitors robot during operation and alerts operator with a message if potential trouble symptoms are detected. This function elevates maintenance from preventative to predictive.

Energy-Efficient Machine Award
by the Japan Machinery Federation and Japan's Federal Ministry of Economy, Trade and Industry

YCⅡ-600 Yushin

CE

The CE specification is a special order.
Please contact us.

PAT
PAT.P

Single-Axis Servo Driven Traverse Type

Swing Type

Side Entry Type

Take-Out Robot for Vertical Molding Machine

Stock System

41

Heartful Technology

Yushin

All-Axis Servo Driven Traverse Type

Single-Axis Servo Driven Traverse Type

Swing Type

Side Entry Type

Take-Out Robot for Vertical Molding Machine

Stock System

■ 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) Main arm	Kick stroke (mm) Sub arm	Vertical stroke (mm) Main arm	Vertical stroke (mm) Sub arm	Air consumption (Nℓ/cycle)	Maximum payload (kg)	Clamping force (tf)
YCII-600S	S type 2.2kVA AC200V 11.0A	2200 [2500]	1060	–	1300 〈1550〉	–	18.0 (ECO vacuum OFF)	15	400–650
YCII-600D			930	930		1300 〈1550〉	10.0 (ECO vacuum ON)		
YCII-800S-e	D type 2.8kVA AC200V 14.0A		1160	–	1550	–	22.0 (ECO vacuum OFF)		550–1000
YCII-800D-e			1030	1030		1550	13.0 (ECO vacuum ON)		

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)
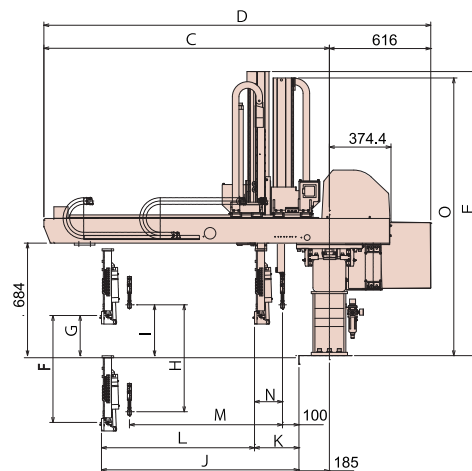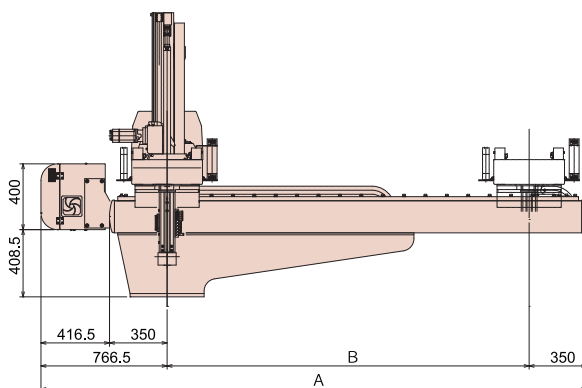
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
YCII-600S	3316.5 [3616.5]	2200 [2500]	1736	2352	1727 〈1852〉	1300 〈1550〉	244	–	–	1200	140	1060	–	–	–
YCII-600D								1300 〈1550〉	309		270	930	930	170	1688 〈1813〉
YCII-800S-e			1856	2472	1852	1550	184	–	–	1300	140	1160	–	–	–
YCII-800D-e								1550	249		270	1030	1030	170	1813

[　]: Extended traverse stroke
〈　〉: Extended vertical stroke

All-Axis Servo Driven Traverse Type Take-Out Robot
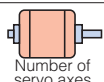
All-Axis Servo Driven Traverse Type Take-Out Robot
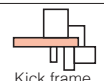
YCⅡ-800S/D, YCⅡ-1300S/D-e

■Features

Clamping force	550–1600 tf
Number of servo axes	3/5-axis
Kick frame	Dual support type
Vertical arm	2-stage telescopic type
NC box	On robot body
Controller	E-touch compact-YC
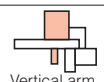
All-Axis Servo Driven Take-Out Robot for Energy-Smart Manufacturers
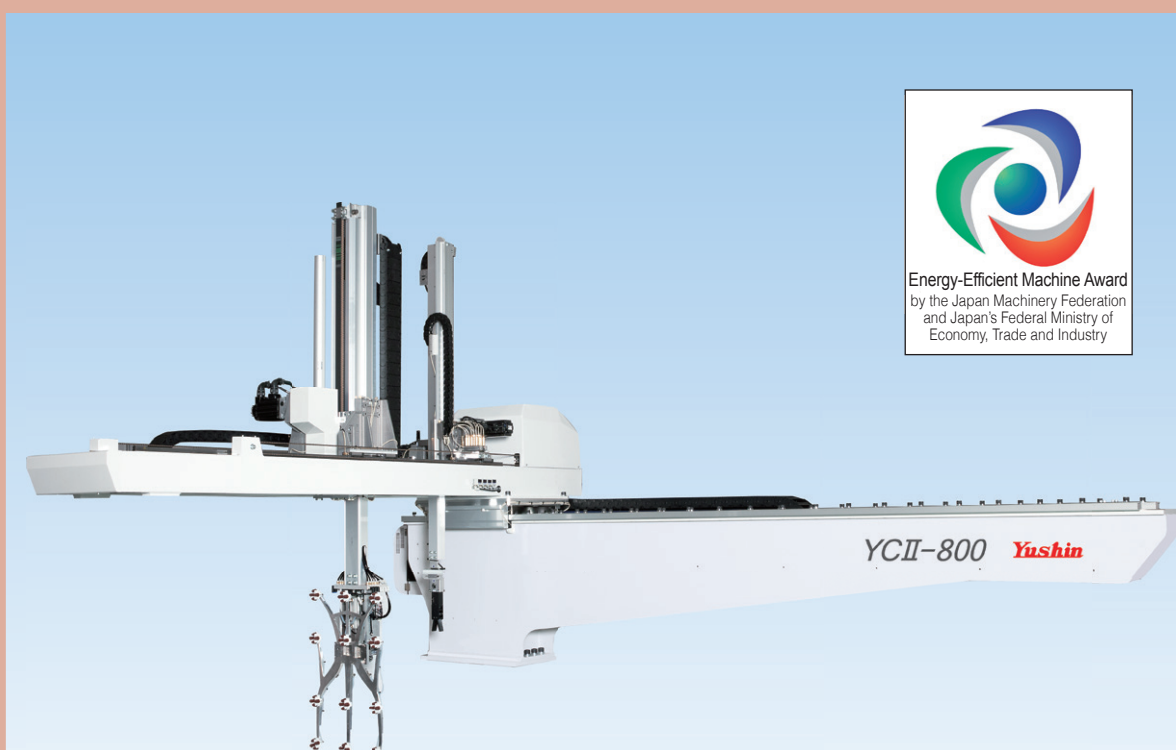
Compared to older models, YC series robots benefit from much lighter components and structures by incorporating design optimization technology. This weight reduction results in significantly better energy efficiency and longevity. Design optimization also targeted factors like natural oscillation and damping characteristics to greatly reduce arm vibration. The YCⅡ-800/1300-e is sized for 550-1600 tf molding machines.

E-touch compact-YC PAT.

- ● ECO Vacuum P82
- ● ECO Monitor P79
- ● Predictive Maintenance*

Standard equipment

* Continuously monitors robot during operation and alerts operator with a message if potential trouble symptoms are detected. This function elevates maintenance from preventative to predictive.

Energy-Efficient Machine Award
by the Japan Machinery Federation and Japan's Federal Ministry of Economy, Trade and Industry

YCⅡ-800 Yushin

CE

The CE specification is a special order.
Please contact us.

PAT
PAT.P

All-Axis Servo Driven Traverse Type

Single-Axis Servo Driven Traverse Type

Swing Type

Side Entry Type

Take-Out Robot for Vertical Molding Machine

Stock System

■Standard Specifications

Power source	Driving method	Control method	Air pressure	Maximum air pressure	Wrist flip angle
3 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 arm	Sub arm	Main arm	Sub arm			
YCⅡ-800S	S type 2.5kVA AC200V 9.1A	2000 [2500] [3000]	1140	–	1550 ⟨1800⟩	–	29.0 (ECO vacuum OFF)	25	550–1000
YCⅡ-800D			960	960		1550 ⟨1800⟩	20.0 (ECO vacuum ON)		
YCⅡ-1300S-e	D type 3.4kVA AC200V 13.8A	2500 [3000]	1540	–	1800	–	36.0 (ECO vacuum OFF)		1000–1600
YCⅡ-1300D-e			1360	1360		1800	24.0 (ECO vacuum ON)		

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)
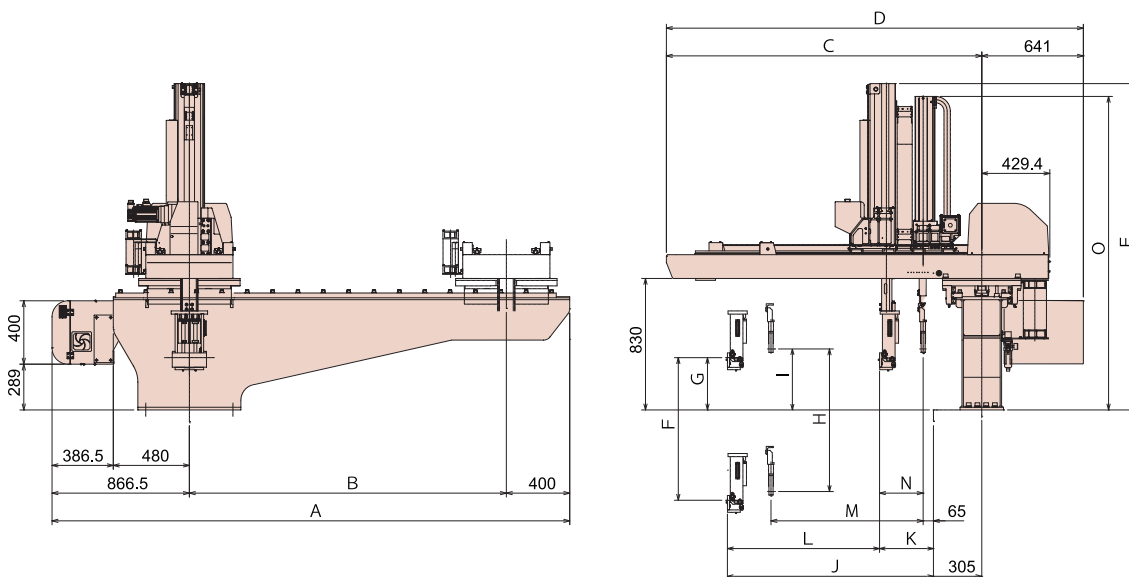
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
YCⅡ-800S	3266.5 [3766.5] [4266.5]	2000 [2500] [3000]	1991	2362	2060 ⟨2185⟩	1550 ⟨1800⟩	330	–	–	1300	160	1140	–	–	–
YCⅡ-800D								1550 ⟨1800⟩	385		340	960	960	275	1980 ⟨2105⟩
YCⅡ-1300S-e	3766.5 [4266.5]	2500 [3000]	2391	3032	2185	1800	130	–	–	1700	160	1540	–	–	–
YCⅡ-1300D-e								1800	185		340	1360	1360	275	2105

[ ]: Extended traverse stroke
⟨ ⟩: Extended vertical stroke

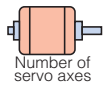**All-Axis Servo Driven Traverse Type Take-Out Robot**

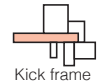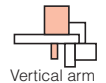# All-Axis Servo Driven Traverse Type Take-Out Robot
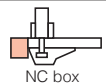
YCⅡ-1300S/D

■Features

Clamping force	1000–1600 tf
Number of servo axes	3/5-axis
Kick frame	Dual support type
Vertical arm	2-stage telescopic type
NC box	On robot body
Controller	E-touch compact-YC

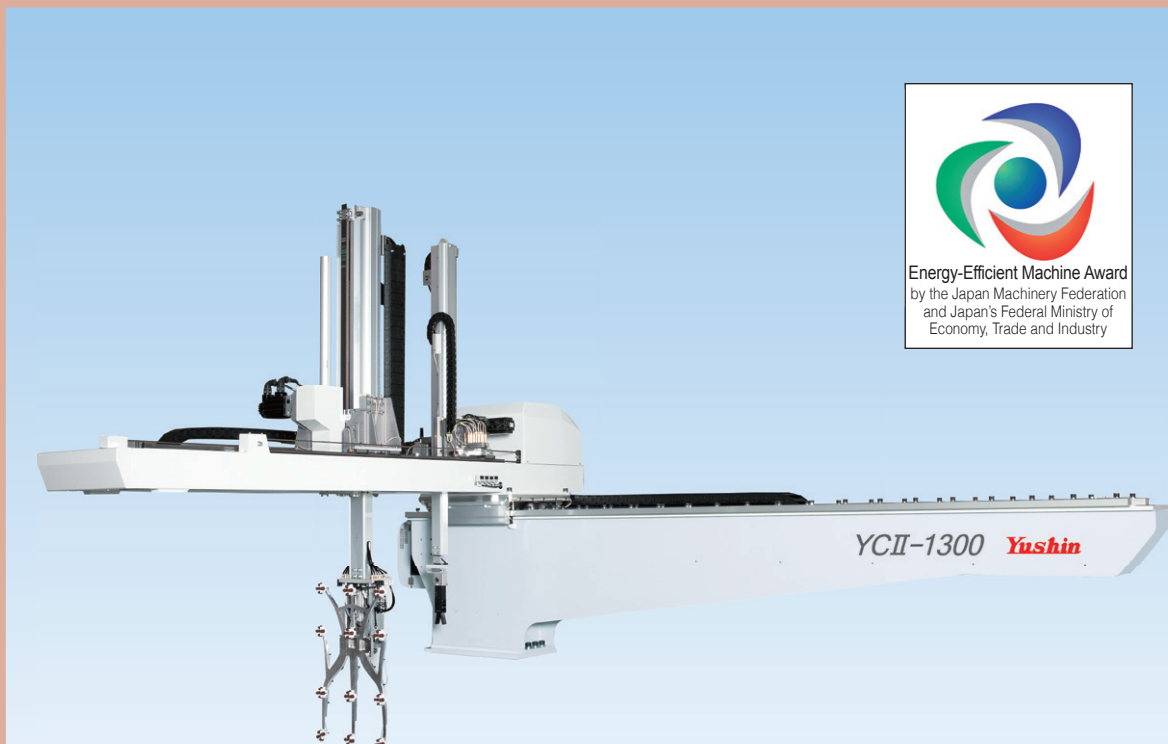## All-Axis Servo Driven Take-Out Robot for Energy-Smart Manufacturers

Compared to older models, YC series robots benefit from much lighter components and structures by incorporating design optimization technology. This weight reduction results in significantly better energy efficiency and longevity. Design optimization also targeted factors like natural oscillation and damping characteristics to greatly reduce arm vibration. The YCⅡ-1300 is sized for 1000-1600 tf molding machines.

E-touch compact-YC PAT.

- ● ECO Vacuum P82
- ● ECO Monitor P79
- ● Predictive Maintenance*

Standard equipment

* Continuously monitors robot during operation and alerts operator with a message if potential trouble symptoms are detected. This function elevates maintenance from preventative to predictive.

Energy-Efficient Machine Award
by the Japan Machinery Federation and Japan's Federal Ministry of Economy, Trade and Industry

YCⅡ-1300 *Yushin*

CE

The CE specification is a special order. Please contact us.

PAT
PAT.P

Heartful Technology

Yushin

All-Axis Servo Driven Traverse Type

Single-Axis Servo Driven Traverse Type

Swing Type

Side Entry Type

Take-Out Robot for Vertical Molding Machine

Stock System

■Standard Specifications

Power source	Driving method	Control method	Air pressure	Maximum air pressure	Wrist flip angle
3 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 arm	Sub arm	Main arm	Sub arm			
YCⅡ-1300S	S type 2.5kVA AC200V 9.1A	3000 [3500]	1570	–	1800 ⟨2100⟩	–	47.0 (ECO vacuum OFF)	35	1000–1600
YCⅡ-1300D	D type 3.4kVA AC200V 13.8A		1380	1380		1800 ⟨2100⟩	35.0 (ECO vacuum ON)		

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)
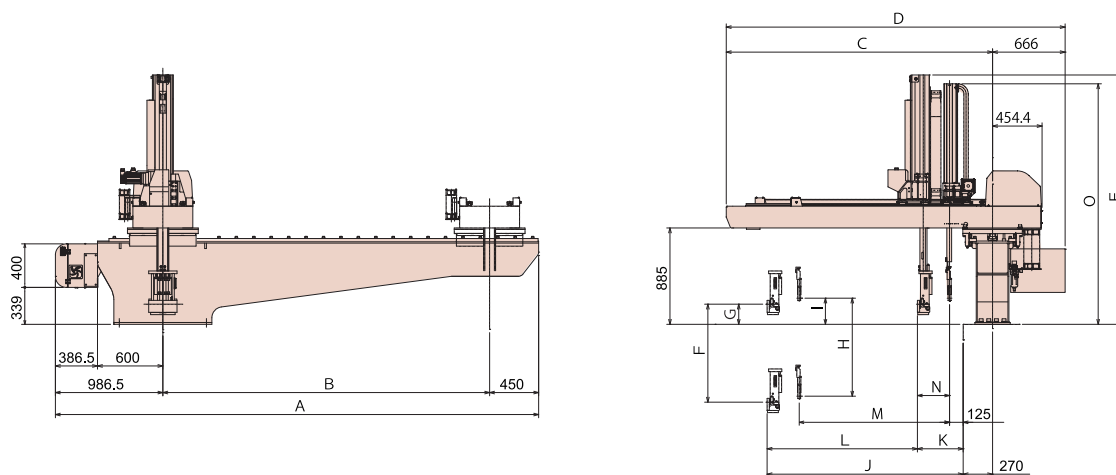
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
YCⅡ-1300S	4436.5 [4936.5]	3000 [3500]	2446	3112	2290 ⟨2440⟩	1800 ⟨2100⟩	185	—	—	1800	230	1570	—	—	—
YCⅡ-1300D								1800 ⟨2100⟩	240		420	1380	1380	295	2210 ⟨2446⟩

[ ]: Extended traverse stroke
⟨ ⟩: Extended vertical stroke

All-Axis Servo Driven Traverse Type Take-Out Robot

List of Options

RBⅡ/YC/YCⅡ/YAⅡ series

Options	Explanation of each option	Target models
Vacuum Suction Circuit	In addition to a standard product vacuum suction circuit, expansion is possible up to 4 vacuum circuits.	All robot types
ECO Vacuum Circuit	Automatically monitors vacuum pressure when suction-gripping parts to reduce compressed air usage by as much as 75%*. *As measured in company test. (The YC/YCⅡ series comes standard with one ECO vacuum circuit.) See P82	
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. (The YC/YCⅡ/YAⅡ series comes standard with one ECO vacuum 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.	
Stationary-Side/ Movable-Side Selection	It is a motion mode to switch the side of product extraction between stationary-side and movable-side. (The YC/YCⅡ series standard feature on 250 tf and smaller models)	
Vertical Wrist Rotation Unit (incl. detection function)	Adding this unit to the wrist-flip mechanism allows the orientation of released products to be changed.	RBⅡ series, YC/YCⅡ series, YAⅡ series (except e-type and YC-30)
Horizontal Wrist Rotation Unit	Adding this unit to the main arm wrist allows the orientation of released products to be changed.	YC/YCⅡ series (except e-type)
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. * When selecting an NC servo wrist for your robot, please carefully consider the NC wrist unit's max. payload. See P85-88	RBⅡ series, YC/YCⅡ series, (except YC-30 and YC-70) YAⅡ series
EOAT Quick-Change Unit	Allows for instant attachment/detachment of end of-arm tool and its pneumatic and wiring connections.	All robot types
EOAT One-Touch Quick-Release Fitting	Allows for fast manual attachment/detachment of end-of-arm tool. See P83-84	
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.	YC/YCⅡ series
Maintenance Step	A ladder and stage for maintenance work can be installed on the robot.	RBⅡ-1800–3000, YCⅡ-600–1300, YAⅡ-1800–3000
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.	YC/YCⅡ series

All-Axis Servo Driven Traverse Type

Single-Axis Servo Driven Traverse Type

Swing Type

Side Entry Type

Take-Out Robot for Vertical Molding Machine

Stock System

Options	Explanation of each option	Target models
Increased Maximum Payload	Power along the vertical axis is increased, enabling the robot to handle heavier payloads.	RBⅡ-2500, YC/YCⅡ series, (compatible with YCⅡ-800-e and smaller models) YAⅡ-2500
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.	RBⅡ-2500, YC/YCⅡ series, (compatible with YCⅡ-800-e and smaller models) YAⅡ-2500
8-Pin Stocker Unit Connector	Metal connector which allows robot to interface with Yushin-made stocker unit.	All robot types
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. (The YC/YCⅡ series comes standard)	RBⅡ series, YAⅡ series
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. (The YC/YCⅡ series comes standard)	
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. (The YC/YCⅡ series comes standard)	
High-Cycle Motion	Traverse and wrist flip motions are performed simultaneously to shorten the robot's overall cycle time. (The YC/YCⅡ series comes standard)	
Under-Cut Motion	Up to 3 additional teaching positions may be programmed in order to extract products from an under-cut mold. (The YC/YCⅡ series comes standard)	
Sampling Motion	During auto operation, the robot will place products at a Sample Release position once every set number of molding cycles. (The YC/YCⅡ series comes standard)	
Dropped Product Detection	After extracting products, robot continuously verifies its hold on the products until it finally releases them.	All robot types
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. (The YC/YCⅡ series comes standard)	RBⅡ series, YAⅡ series
Low Air Pressure Detection	The robot displays an error if air pressure drops below a set value.	All robot types
Pause for Mold Open	Used for manual ejection.	
Flying Cycle Start	The timing to output the Cycle Start signal to the molding machines 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.	RBⅡ-1800–3000, YC/YCⅡ series, (except YC-30 and YC-70) YAⅡ-1800–3000
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. See P94	All robot types (On-controller programming is not applicable for YAⅡ series.)

98

All-Axis Servo Driven Traverse Type Take-Out Robot

All-Axis Servo Driven Traverse Type

Single-Axis Servo Driven Traverse Type

Swing Type

Side Entry Type

Take-Out Robot for Vertical Molding Machine

Stock System

List of Options

RBⅡ/YC/YCⅡ/YAⅡ series

Options	Explanation of each option	Target models
Multilingual Display	Changes the controller display between up to three languages. (Standard equipped with Japanese and one other language) ● RBⅡ Series 　12 languages: Japanese, English, Chinese, Korean, Thai, Spanish, Portuguese, French, German, Polish, Dutch, Italian and Slovak. ● YC/YCⅡ Series 　10 languages: Japanese, English, Chinese, Korean, Thai, Spanish, Indonesian, German, Dutch, and Italian. ● YAⅡ Series 　16 languages: Japanese, English, Chinese, Korean, Indonesian, Thai, Spanish, Portuguese, German, Polish, Romanian, Dutch, Hungarian, French, Czechoslovakian, and Slovak.	All robot types
Free Casing Setting	Up to 250 release positions may be designated per pallet.	RBⅡ series
Take-out Robot Simulator	It is software allowing operators to check the program on PC or E-touch Web controller.　See P93	
3rd Party Program Installation	Allows operator to install Windows-based software onto the take-out robot's E-Touch II controller, in addition to the robot's motion program (to use this option with HST robots, they must include the E-Touch II controller package).	
Flexible Screen	It allows operators to create the design and layout of the controller screen.	
Traverse Beam Stanchion	Support stanchion is installed on the end of extended-length traverse beams or when extra precision is necessary when placing products.	RBⅡ series YC/YCⅡ series (compatible with YCⅡ-800-e and smaller models) YAⅡ series
Custom Color	Robot body, frame caps, and control boxes will be painted with a color specified by the customer.	All robot types
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.	All robot types

● Vertical stroke extension option (mm)

Model	Vertical stroke		Extension (Standard st.+ Extended st.)		Overall robot height after extension	
	Main arm	Sub arm	Main arm	Sub arm	S type	D type
RBⅡ/YAⅡ-1800	2500		2100 + 400		3000 (+210)	
RBⅡ/YAⅡ-2500	3000		2500 + 500		3190 (+240)	
RBⅡ/YAⅡ-3000	3500		3000 + 500		3847 (+260)	

Figures in ( ) are the length to be extended

● New features developed for the YC series

ECO Monitor	Displays the robot's usage of electricity and air in real-time to assist operators with energy-saving measures.
Predictive Maintenance	Continuously monitors robot during operation and alerts operator with a message if potential trouble symptoms are detected. This function elevates maintenance from preventative to predictive.

● Former options which are standard features on the YC

ECO Vacuum Circuit (1 circuit)	Automatically monitors vacuum pressure when suction-gripping parts to reduce compressed air usage by as much as 75%*. The YC comes standard with one ECO Vacuum circuit.　*As measured in company tests.
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.
Sampling Motion	During auto operation, the robot will place products at a Sample Release position once every set number of molding cycles.
Under-Cut Motion	Up to 3 additional teaching positions may be programmed in order to extract products from an under-cut mold.
High-Cycle Motion	Traverse and wrist flip motions are performed simultaneously to shorten the robot's overall cycle time.
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.
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.