

# SCARA ROBOTS

# YK-X

## SERIES



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# YK-X SPECIFICATION SHEET

Type	Model	Arm length (mm) and XY axis resultant maximum speed (m/s)														Standard cycle time (sec) <small>Note 1</small>	Maximum payload (kg)	R-axis tolerable moment of inertia (kgm <sup>2</sup> )	Completely beltless structure <small>Note 2</small>	Detailed info page
		120	150	180	220	250	300	350	400	500	600	700	800	900	1000	1200				
Orbit type	YK350TW	5.6															0.32	5.0	0.005 (Rated) 0.05 (Maximum)	P.72
	YK500TW	6.8															0.29	5.0	0.005 (Rated) 0.05 (Maximum)	P.74
Extra small type	YK120XG	3.3															0.33	1.0	0.01	P.76
	YK150XG	3.4															0.33	1.0	0.01	P.77
	YK180XG	3.3															0.33	1.0	0.01	P.78
	YK180X	3.3															0.39	1.0	0.01	P.79
	YK220X	3.4															0.42	1.0	0.01	P.80
	YK250XG	4.5															0.43	5.0	0.05	P.81
Small type	YK350XG	5.6															0.44	5.0	0.05	P.83
	YK400XE-4	6.0															0.41	4.0	0.05	P.86
	YK400XG	6.1															0.45	5.0	0.05	P.88
Medium type	YK500XGL	5.1															0.48	5.0	0.05	P.90
	YK500XG	7.6															0.42	10.0	0.30	P.92
	YK510XE-10	7.8															0.38	10.0	0.30	P.93
	YK600XGL	4.9															0.54	5.0	0.05	P.94
	YK600XG	8.4															0.43	10.0	0.30	P.96
	YK610XE-10	8.6															0.39	10.0	0.30	P.97
	YK600XGH	7.7															0.47	20.0	1.0	P.98
	YK700XGL	9.2															0.50	10.0	0.30	P.99
Large type	YK710XE-10	9.5															0.42	10.0	0.30	P.100
	YK700XG	8.4															0.42	20.0	1.0	P.101
	YK800XG	9.2															0.48	20.0	1.0	P.102
	YK900XG	9.9															0.49	20.0	1.0	P.103
	YK1000XG	10.6															0.49	20.0	1.0	P.104
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Wall mount / Inverse type	YK400XGS	6.1															0.49	5.0	0.05	P.109
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	YK700XGS	8.4															0.42	20.0	1.0	P.113
	YK800XGS	9.2															0.48	20.0	1.0	P.114
	YK900XGS	9.9															0.49	20.0	1.0	P.115
	YK1000XGS	10.6															0.49	20.0	1.0	P.116
	YK250XGP	4.5															0.50	4.0	0.05	P.117
Dust-proof & drip-proof type	YK350XGP	5.6															0.52	4.0	0.05	P.119
	YK400XGP	6.1															0.50	4.0	0.05	P.121
	YK500XGLP	5.1															0.66	4.0	0.05	P.123
	YK500XGP	7.6															0.55	10.0	0.3	P.125
	YK600XGLP	4.9															0.71	4.0	0.05	P.126
	YK600XGP	8.4															0.56	10.0	0.3	P.128
	YK600XGHP	7.7															0.57	20.0	1.0	P.129
	YK700XGP	8.4															0.52	20.0	1.0	P.130
	YK800XGP	9.2															0.58	20.0	1.0	P.131
	YK900XGP	9.9															0.59	20.0	1.0	P.132
	YK1000XGP	10.6															0.59	20.0	1.0	P.133

Note 1. The standard cycle time is measured under the following conditions.

- During back and forth movement 25mm vertically and 100mm horizontally (extra small type)
- During back and forth movement 25mm vertically and 300mm horizontally (small type / medium type / large type)

Note 2. Maintains high accuracy over long periods because the beltless structure drastically cuts down on wasted motion.  
Operation is also nearly maintenance-free for long periods with no worries about belt breakage, stretching or deterioration over time.

# Robot ordering method description

In the order format for the YAMAHA SCARA robots YK-X series, the notation (letters/numbers) for the mechanical section is shown linked to the controller section notation.

## [Example]

### ● Mechanical ▶ YK250XG

- Z-axis stroke ▶ 150mm
- Tool flange ▶ With tool flange
- Hollow shaft ▶ With hollow shaft
- Cable length ▶ 3.5m

### ● Controller ▶ RCX340

### ● Ordering method

**YK250XG-150-F-S-3L-RCX340**

Mechanical section

Controller section

To find detailed controller information see the controller page.

**RCX340 ▶ P.636**

① Model	② Z-axis stroke	③ Tool flange	④ Hollow shaft	⑤ Cable	⑥ Controller
YK***	50 50mm 100 100mm 150 150mm 200 200mm 300 300mm 400 400mm	No entry None F With tool flange	No entry None S With hollow shaft	2L 2m 3L 3.5m 5L 5m 10L 10m	<b>RCX340</b>

Note 1. Available only for the master.

# Robot ordering method terminology

Note. The selection items available for ordering method may vary depending on the model. Note. The selection items available for ordering method may vary depending on the model.

① <b>Model</b>	Enter the robot unit model.
② <b>Return-to-origin method (YK400XE-4 only)</b>	Select the return-to-origin method. <b>S:</b> Sensor <b>T:</b> Stroke end
③ <b>Z-axis stroke</b>	Select the Z axis stroke. The stroke varies with the model you select so see that model's page to confirm the specifications.
④ <b>Tool flange</b>	Tool flange option for easy mounting of a tool to the tip. <b>No entry:</b> None <b>F:</b> With tool flange
⑤ <b>Hollow shaft</b>	Hollow shaft option for easy routing of air tubes and harness wires. <b>No entry:</b> None <b>S:</b> With hollow shaft <b>C:</b> With hollow cap
⑥ <b>Brake release switch</b>	Select whether a brake release switch is present. <b>No entry:</b> None <b>BS:</b> With tool flange
⑦ <b>Cable</b>	Select the length of the robot cable connecting the robot and controller. <b>2L:</b> 2m <sup>(Note 1)</sup> <b>3L:</b> 3.5m <b>5L:</b> 5m <b>10L:</b> 10m <small>Note 1. Only selectable for YK120XG, YK150XG, YK180XG.</small>
⑧ <b>Controller</b>	Select the RCX340.

# YK350TW

Orbit type



- Arm length 350mm
- Maximum payload 5kg

## Ordering method

**YK350TW-130**

**RCX340-4**

Model	Z axis stroke	Tool flange	Hollow shaft	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
	130: 130mm	No entry: None F: With tool flange	No entry: None S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	175 mm	175 mm	130 mm	-
		+/-225 °	+/-225 °	-	+/-720 °
AC servo motor output		750 W	400 W	200 W	105 W
Deceleration mechanism	Transmission method	Timing belt	Direct-coupled	Timing belt	Timing belt
	Motor to speed reducer				
	Speed reducer to output				
Repeatability	Note 1	+/-0.01 mm	+/-0.01 mm	+/-0.01 °	
Maximum speed	Note 2	5.6 m/sec	1.5 m/sec	3000 °/sec	
Maximum payload	Note 2		5 kg		
Standard cycle time: with 1kg payload	Note 3		0.32 sec		
R-axis tolerable moment of inertia	Note 4		0.005 kgm <sup>2</sup>		
	Rated				
	Maximum		0.05 kgm <sup>2</sup>		
User wiring			0.15 sq × 8 wires		
User tubing (Outer diameter)			φ 6 × 2		
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		26 kg			

Note 1. This is the value at a constant ambient temperature.

Note 2. Tool flange specifications (option) are 4 kg.

Note 3. When moving a 1 kg load back and forth 300mm horizontally and 25mm vertically (rough positioning arch motion).

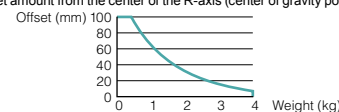
Note 4. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

## Controller

Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

### R-axis moment of inertia (load inertia)

Recommended positional relationship between the load weight and the offset amount from the center of the R-axis (center of gravity position)

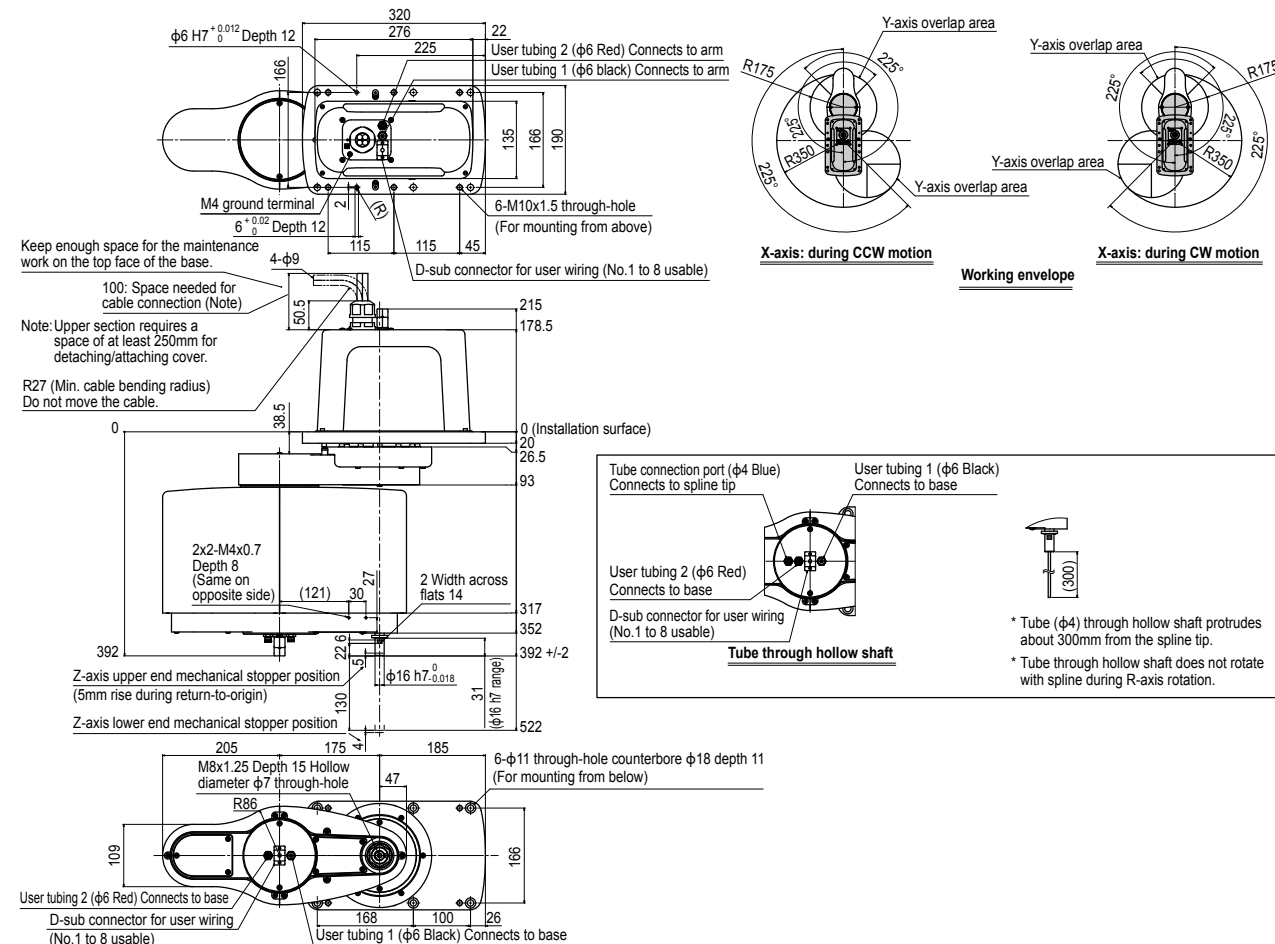


Note. When the payload exceeds 4kg, it is predicted that the R-axis moment of inertia may exceed the rated value. So, make proper parameter setting.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

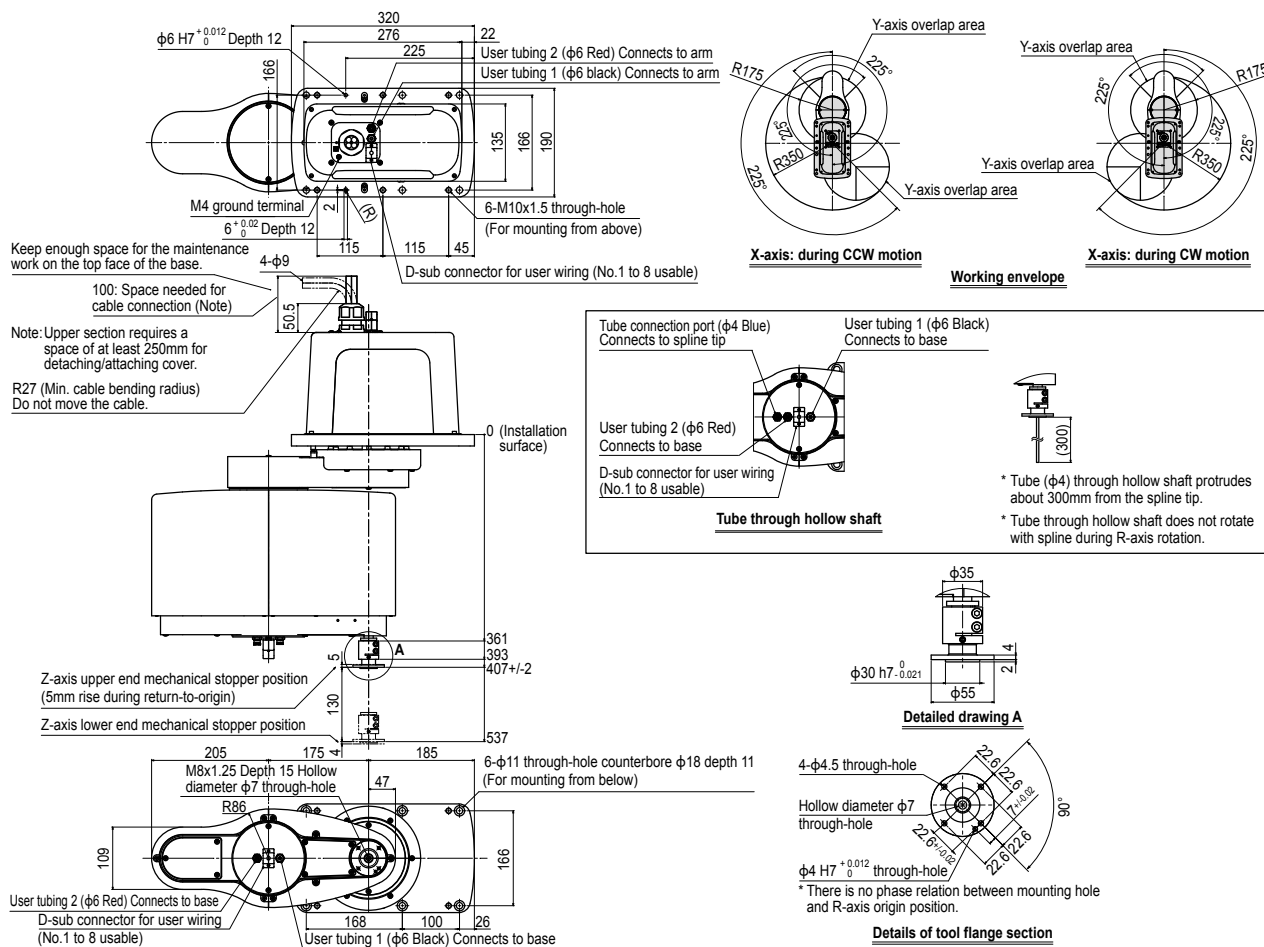
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## YK350TW





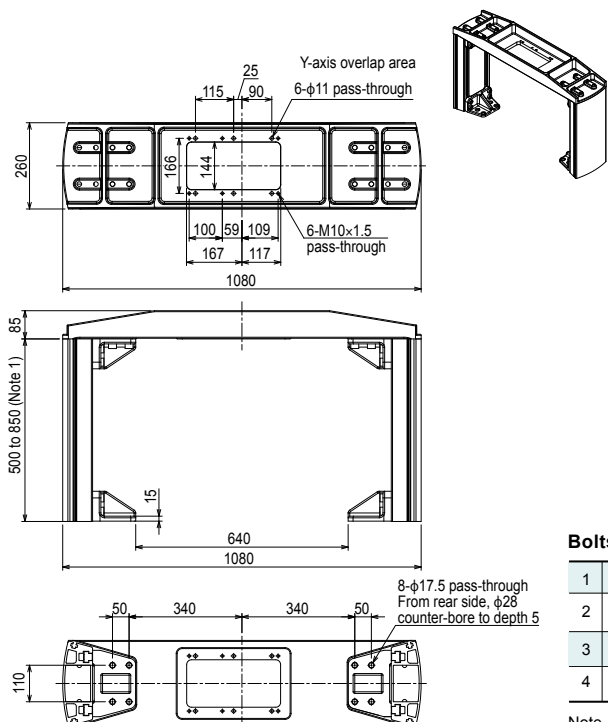
## YK350TW Tool flange mount type



## Dedicated mounting bracket for the YK-TW &lt;BASE POST ASSY.&gt;

The YK-TW can be easily installed on top of a customer-provided stand.

## External diagram for the YK350TW



The mounting bracket is assembled by the customer. Refer to the included assembly diagram for assembly.

Note 1. Identical to the height of the robot mounting surface.  
 The height of the stand can be selected at a 50 mm pitch.

Height (mm)	Model	Unit weight (kg)
500	KDU-M6100-P0	46
550	KDU-M6100-50	48
600	KDU-M6100-R0	50
650	KDU-M6100-60	51
700	KDU-M6100-S0	54
750	KDU-M6100-70	55
800	KDU-M6100-T0	57
850	KDU-M6100-80	59

Note. YK350TW and YK500TW are parts in common.  
 Note. The top plate by itself weighs 19 kg.

## Bolts supplied with the controller

1	M16 x Pitch 2.0 x Length 45 [Hexagonal socket head bolt]	8 pcs. (For securing the installation base)
2	Washer for M16 bolt [Plate thickness 3 mm, Outside diameter $\phi 26$ , Inside diameter $\phi 16$ ]	8 pcs.
3	M10 x Pitch 1.5 x Length 30	6 pcs. (Bolts used to secure the SCARA main body from the bottom surface.)
4	M10 x Pitch 1.5 x Length 40	6 pcs. (Bolts used to secure the SCARA main body from the top surface.)

Note. Only either 3 or 4 is used.

# YK500TW

Orbit type



- Arm length 500mm
- Maximum payload 5kg

## Ordering method

**YK500TW-130**

**RCX340-4**

Model	Z axis stroke	Tool flange	Hollow shaft	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
	130: 130mm	No entry: None F: With tool flange	No entry: None S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		250 mm	250 mm	130 mm	-
	Rotation angle		+/-225 °	+/-225 °	-	+/-720 °
AC servo motor output			750 W	400 W	200 W	105 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Timing belt	Direct-coupled	Timing belt	Timing belt
		Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>			+/-0.015 mm		+/-0.01 mm	+/-0.01 °
Maximum speed			6.8 m/sec		1.5 m/sec	3000 °/sec
Maximum payload <sup>Note 2</sup>			5 kg			
Standard cycle time: with 1kg payload <sup>Note 3</sup>			0.29 sec			
R-axis tolerable moment of inertia <sup>Note 4</sup>	Rated		0.005 kgm <sup>2</sup>			
	Maximum		0.05 kgm <sup>2</sup>			
User wiring			0.15 sq × 8 wires			
User tubing (Outer diameter)			φ 6 × 2			
Travel limit			1.Soft limit   2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m   Option: 5 m, 10 m			
Weight			27 kg			

Note 1. This is the value at a constant ambient temperature.

Note 2. For the option specifications (tool flange mount type), the maximum payload becomes 4 kg.

Note 3. When moving a 1 kg load back and forth 300 mm horizontally and 25 mm vertically (rough positioning arch motion).

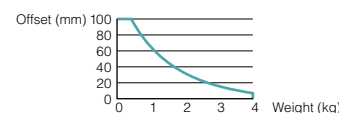
Note 4. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

## Controller

Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

### R-axis moment of inertia (load inertia)

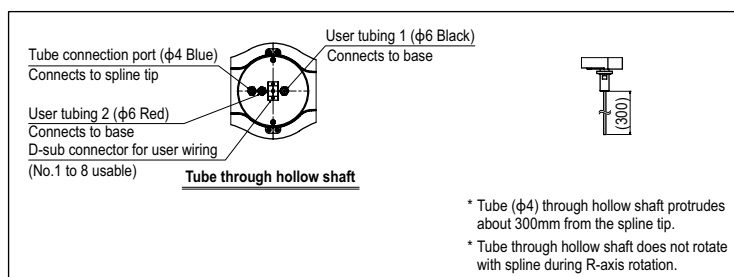
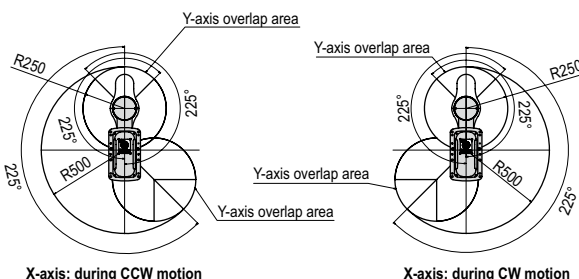
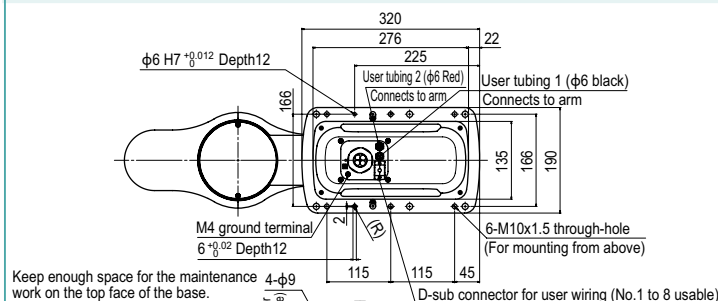
Recommended positional relationship between the load weight and the offset amount from the center of the R-axis (center of gravity position)



Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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## YK500TW



[illegible]

# YK120XG

Standard type: Extra small type

- Arm length 120mm
- Maximum payload 1kg

## Ordering method

**YK120XG - 50**

**RCX340-4**

Model	Z axis stroke	Cable
	50: 50mm	2L: 2m 3L: 3.5m 5L: 5m 10L: 10m

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
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Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	45 mm	75 mm	50 mm	—
		+/-125 °	+/-145 °	—	+/-360 °
AC servo motor output		30 W	30 W	30 W	30 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability	Note 1	+/-0.01 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		3.3 m/sec	0.9 m/sec	1700 °/sec	
Maximum payload		1.0 kg			
Standard cycle time: with 0.1kg payload	Note 2	0.33 sec			
R-axis tolerable moment of inertia	Note 3	0.01 kgm <sup>2</sup>			
User wiring		0.1 sq × 8 wires			
User tubing (Outer diameter)		φ 4 × 2			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 2 m Option: 3.5 m, 5 m, 10 m			
Weight (Excluding robot cable)	Note 4	3.9 kg			
Robot cable weight		0.9 kg (2 m)	1.5 kg (3.5 m)	2.1 kg (5 m)	4.2 kg (10 m)

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When moving 25mm in vertical direction and 100mm in horizontal direction reciprocally.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

## Controller

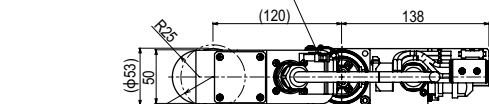
Controller	Power capacity (VA)	Operation method
RCX340	300	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

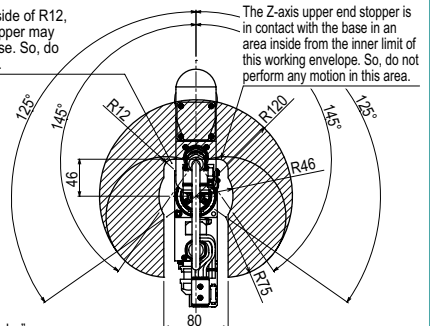
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## YK120XG

Connector for user wiring  
(No. 1 to 8 usable, socket contact)  
J.S.T. Mfg Co., Ltd. SM connector  
SMR-8V-B, pin SYM-001T-P0.6  
(supplied)  
Use the YC12 crimping tool.



If the robot enters the inside of R12, the Z-axis upper end stopper may be in contact with the base. So, do not perform such motion.

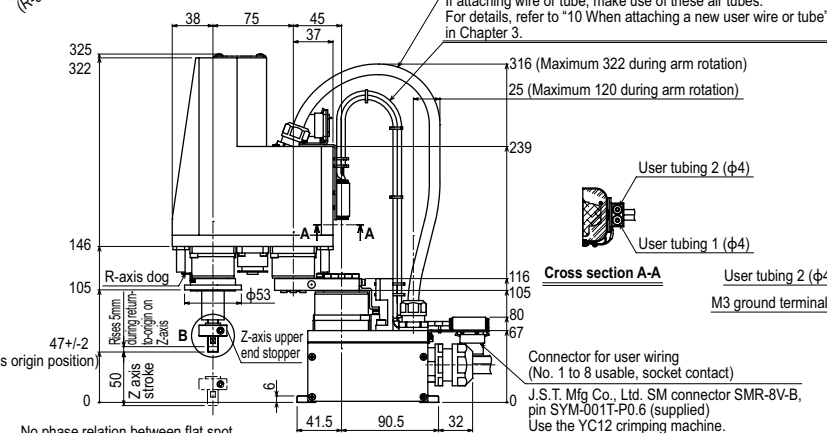


### Working envelope

X, Y-axis origin is at +/-5° with respect to front of robot base

When performing return-to-origin, move the axes counterclockwise in advance from the position shown above.

Do not attach any wire or tube to self-supporting cable. Doing so may degrade positioning accuracy.  
If attaching wire or tube, make use of these air tubes. For details, refer to "10 When attaching a new user wire or tube" in Chapter 3.



No phase relation between flat spot and R-axis origin

User tool installation range

φ10h 7<sup>0</sup><sub>-0.015</sub>

Width of flat

9.0±0.2

Hollow diameter : φ4

Details of B

2-φ5.5 through-hole

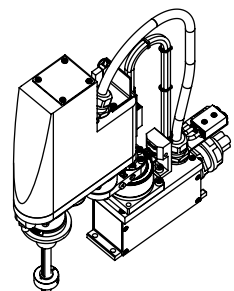
Use four M5 mounting bolt

Tapped hole for user 4-M3 x 0.5, depth: 7

R27 (Min. cable bending radius) Do not move the cable.

4-φ9

Keep enough space for the maintenance work at the rear of the base.



**Standard type: Extra small type**

- Arm length 150mm
- Maximum payload 1kg

### Ordering method

<b>YK150XG</b>	<b>50</b>		<b>RCX340-4</b>								
Model	Z axis stroke 50, 50mm	Cable 2L: 2m 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery	

Specify various controller setting items. RCX340 ▶ **P.636**

## ■ Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		75 mm	75 mm	50 mm	–
	Rotation angle		+/-125 °	+/-145 °	–	+/-360 °
AC servo motor output			30 W	30 W	30 W	30 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			3.4 m/sec		0.9 m/sec	1700 °/sec
Maximum payload			1.0 kg			
Standard cycle time: with 0.1kg payload <sup>Note 2</sup>			0.33 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>			0.01 kgm <sup>2</sup>			
User wiring			0.1 sq × 8 wires			
User tubing (Outer diameter)			φ 4 × 2			
Travel limit			1.Soft limit   2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 2 m   Option: 3.5 m, 5 m, 10 m			
Weight (Excluding robot cable) <sup>Note 4</sup>			4.0 kg			
Robot cable weight			0.9 kg (2 m)	1.5 kg (3.5 m)	2.1 kg (5 m)	4.2 kg (10 m)

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When moving 25mm in vertical direction and 100mm in horizontal direction reciprocally

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4: The total robot weight is the sum of the robot body weight and the cable weight.

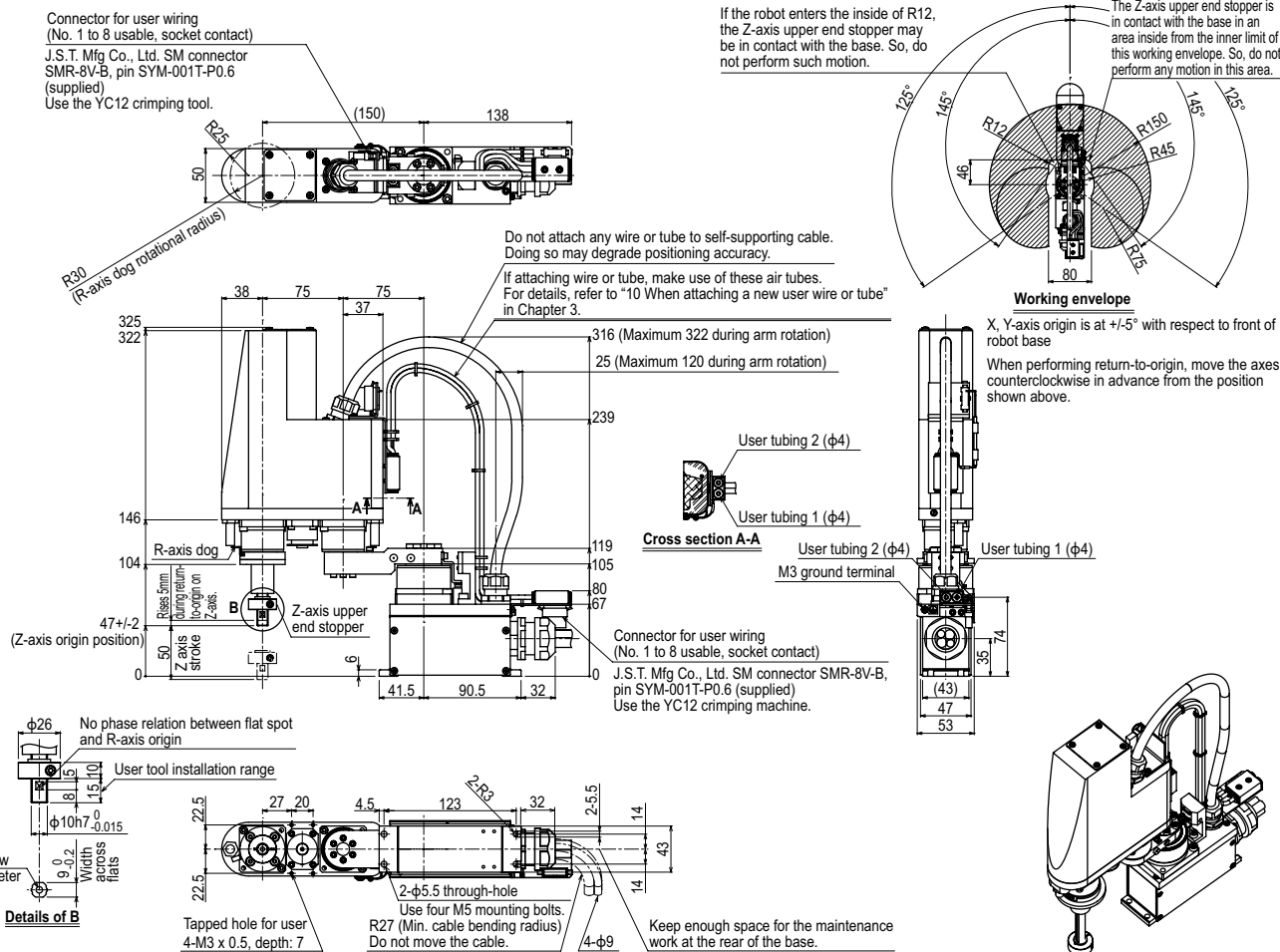
#### Controller

Controller	Power capacity (VA)	Operation method
RCX340	300	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

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**<https://global.yamaha-motor.com/business/robot/>**

## YK150XG





# YK180XG

Standard type: Extra small type



- Arm length 180mm
- Maximum payload 1kg

## Ordering method

**YK180XG - 50**

**RCX340-4**

Model	Z axis stroke	Cable
	50 : 50mm	2L: 2m 3L: 3.5m 5L: 5m 10L: 10m

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
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Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	105 mm	75 mm	50 mm	—
		$\pm 125^\circ$	$\pm 145^\circ$	—	$\pm 360^\circ$
AC servo motor output		30 W	30 W	30 W	30 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability	Note 1	$\pm 0.01$ mm	$\pm 0.01$ mm	$\pm 0.004^\circ$	
Maximum speed		3.3 m/sec	0.9 m/sec	1700 °/sec	
Maximum payload		1.0 kg			
Standard cycle time: with 0.1kg payload	Note 2	0.33 sec			
R-axis tolerable moment of inertia	Note 3	0.01 kgm <sup>2</sup>			
User wiring		0.1 sq × 8 wires			
User tubing (Outer diameter)		$\phi 4 \times 2$			
Travel limit		1. Soft limit 2. Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 2 m Option: 3.5 m, 5 m, 10 m			
Weight (Excluding robot cable)	Note 4	4.1 kg			
Robot cable weight		0.9 kg (2 m)	1.5 kg (3.5 m)	2.1 kg (5 m)	4.2 kg (10 m)

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When moving 25mm in vertical direction and 100mm in horizontal direction reciprocally.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

## Controller

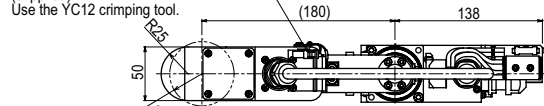
Controller	Power capacity (VA)	Operation method
RCX340	500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot/>

## YK180XG

Connector for user wiring  
(No. 1 to 8 usable, socket contact)  
J.S.T. Mfg Co., Ltd. SM connector  
SMR-8V-B, pin SYM-001T-P0.6  
(supplied)  
Use the YC12 crimping tool.



Do not attach any wire or tube to self-supporting cable. Doing so may degrade positioning accuracy.

If attaching wire or tube, make use of these air tubes.  
For details, refer to "10 When attaching a new user wire or tube" in Chapter 3.

316 (Maximum 322 during arm rotation)

10 (Maximum 120 during arm rotation)

239

119

105

80

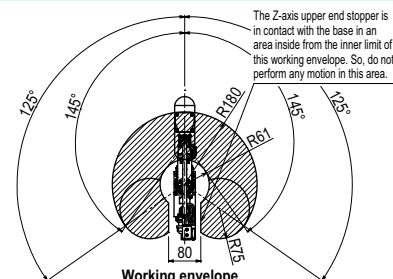
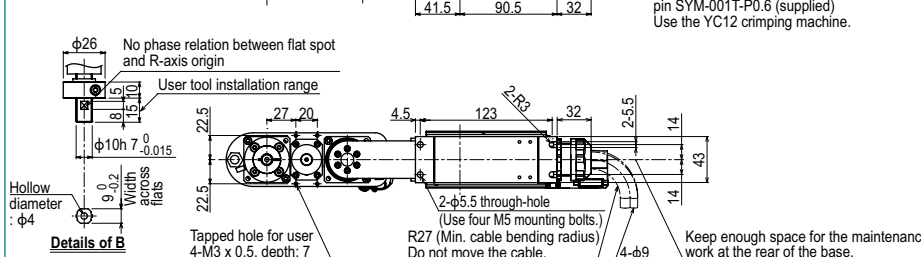
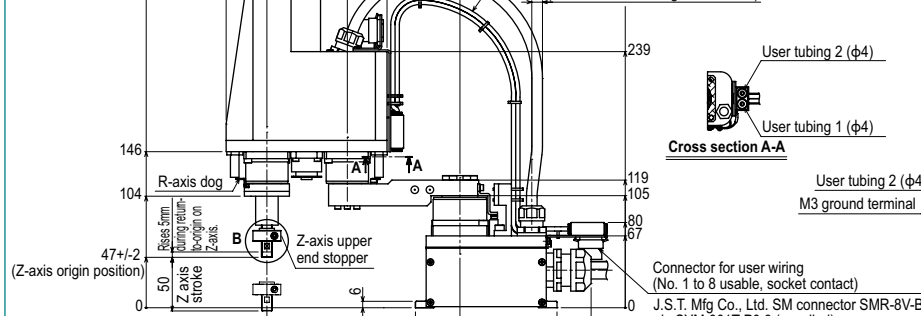
67

0

41.5

90.5

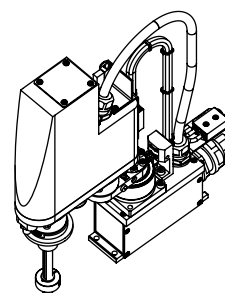
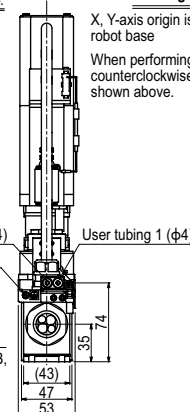
32



### Working envelope

X, Y-axis origin is at  $\pm 5^\circ$  with respect to front of robot base

When performing return-to-origin, move the axes counterclockwise in advance from the position shown above.









### Standard type: Small type

- Arm length 250mm
- Maximum payload 5kg

### Ordering method

# YK250XG-150

<b>Model</b>	<b>Z axis stroke</b> 150: 150mm	<b>Tool flange</b> No entry: None F: With tool flange	<b>Hollow shaft</b> No entry: None S: With hollow shaft	<b>Cable</b> SL: 3.5m SL: 5m SL: 10m	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>
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**Specify various controller setting items. RCX340 ▶ P636**

Specify various controller setting items. RCX340 ▶ P.636

## ■ Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		100 mm	150 mm	150 mm	-
	Rotation angle		+/-140 °	+/-144 °	-	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			4.5 m/sec		1.1 m/sec	1020 °/sec
Maximum payload			5 kg (Standard specification), 4 kg (Option specifications <sup>Note 4</sup> )			
Standard cycle time: with 2kg payload <sup>Note 2</sup>			0.43 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>			0.05 kgm <sup>2</sup> (0.5 kgfcm <sup>2</sup> )			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			φ 4 × 3			
Travel limit			1.Soft limit   2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m   Option: 5 m, 10 m			
Weight			18.5 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Maximum payload of option specifications (with tool flange attached or with user wiring and tubing routed through spline shaft) is 4kg.

#### Controller

Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

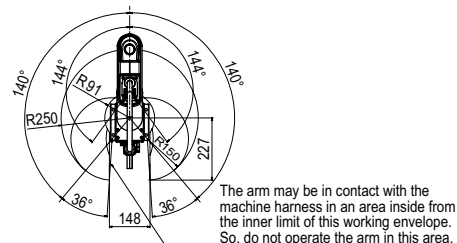
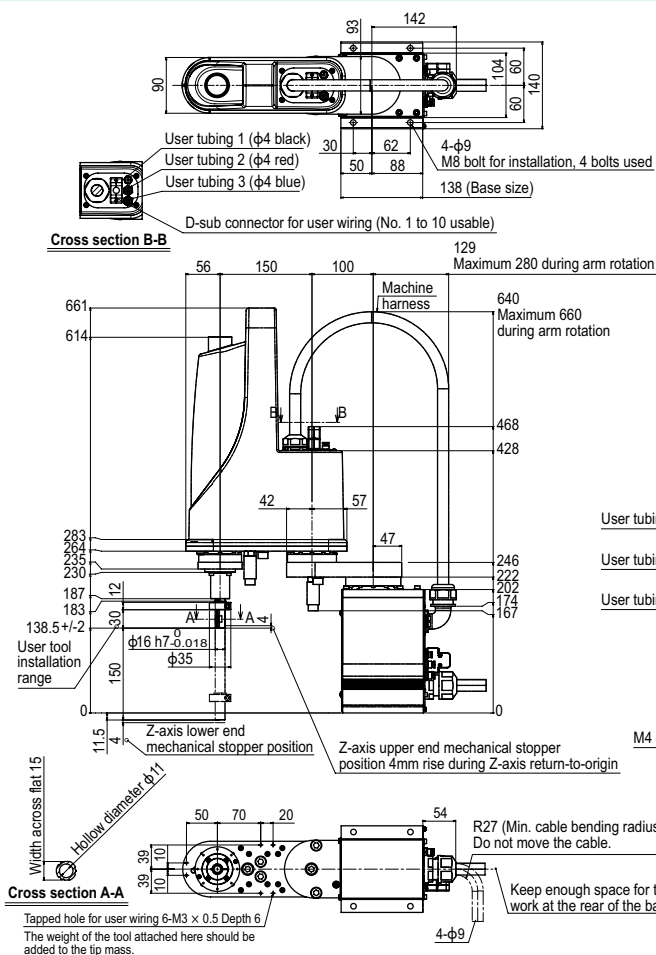
**Note.** The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)

**Note.** To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:

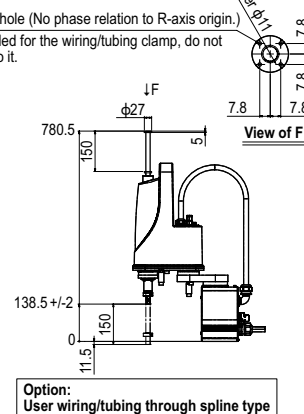
<https://global.yamaha-motor.com/business/robot>

## YK250XG



- Note that the robot cannot be used at a position where the base flange or robot cable interferes with the spline in the working envelope shown above.
- X-axis mechanical stopper position :  $142^{\circ}$
- Y-axis mechanical stopper position :  $146^{\circ}$

4-M3 x 0.5 through-hole (No phase relation to R-axis origin.)  
As this hole is intended for the wiring/tubing clamp, do not attach a large load to it.



Option:  
User wiring/tubing through spline type

Controller

**RCX340 ► 636**



# YK350XG

Standard type: Small type

- Arm length 350mm
- Maximum payload 5kg

## Ordering method

**YK350XG - 150**

Model	Z axis stroke	Tool flange	Hollow shaft	Cable
	150: 150mm	No entry: None F: With tool flange	No entry: None S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m

**RCX340-4**

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	200 mm	150 mm	150 mm	-
		+/-140 °	+/-144 °	-	+/-360 °
AC servo motor output		200 W	150 W	50 W	100 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability	Note 1	+/-0.01 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		5.6 m/sec	1.1 m/sec	1020 °/sec	
Maximum payload		5 kg (Standard specification), 4 kg (Option specifications Note 4)			
Standard cycle time: with 2kg payload	Note 2	0.44 sec			
R-axis tolerable moment of inertia	Note 3	0.05 kgm <sup>2</sup> (0.5 kgfcm <sup>2</sup> )			
User wiring		0.2 sq × 10 wires			
User tubing (Outer diameter)		φ 4 × 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		19 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Maximum payload of option specifications (with tool flange attached or with user wiring and tubing routed through spline shaft) is 4kg.

## Controller

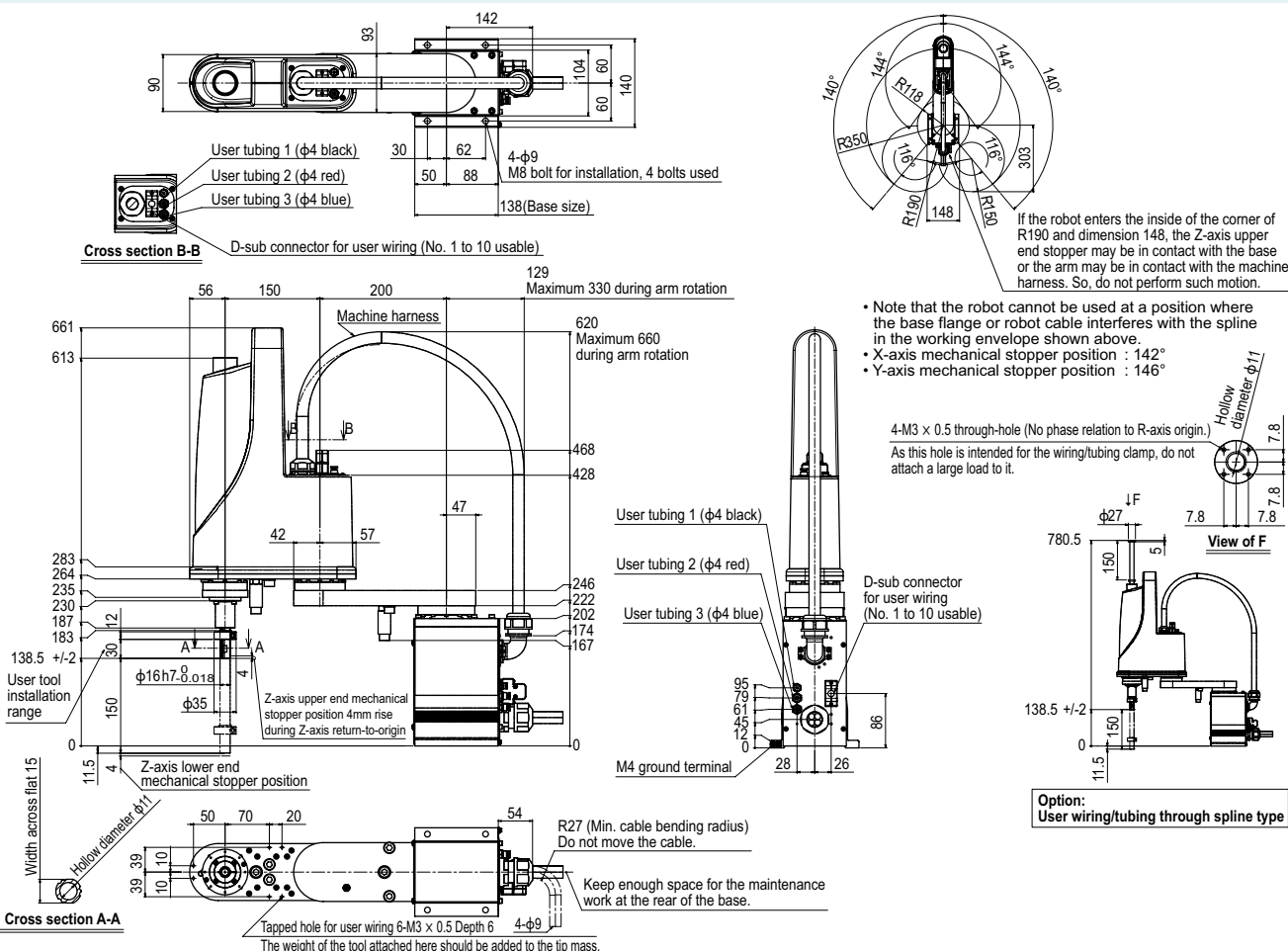
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
See our robot manuals (installation manuals) for detailed information.

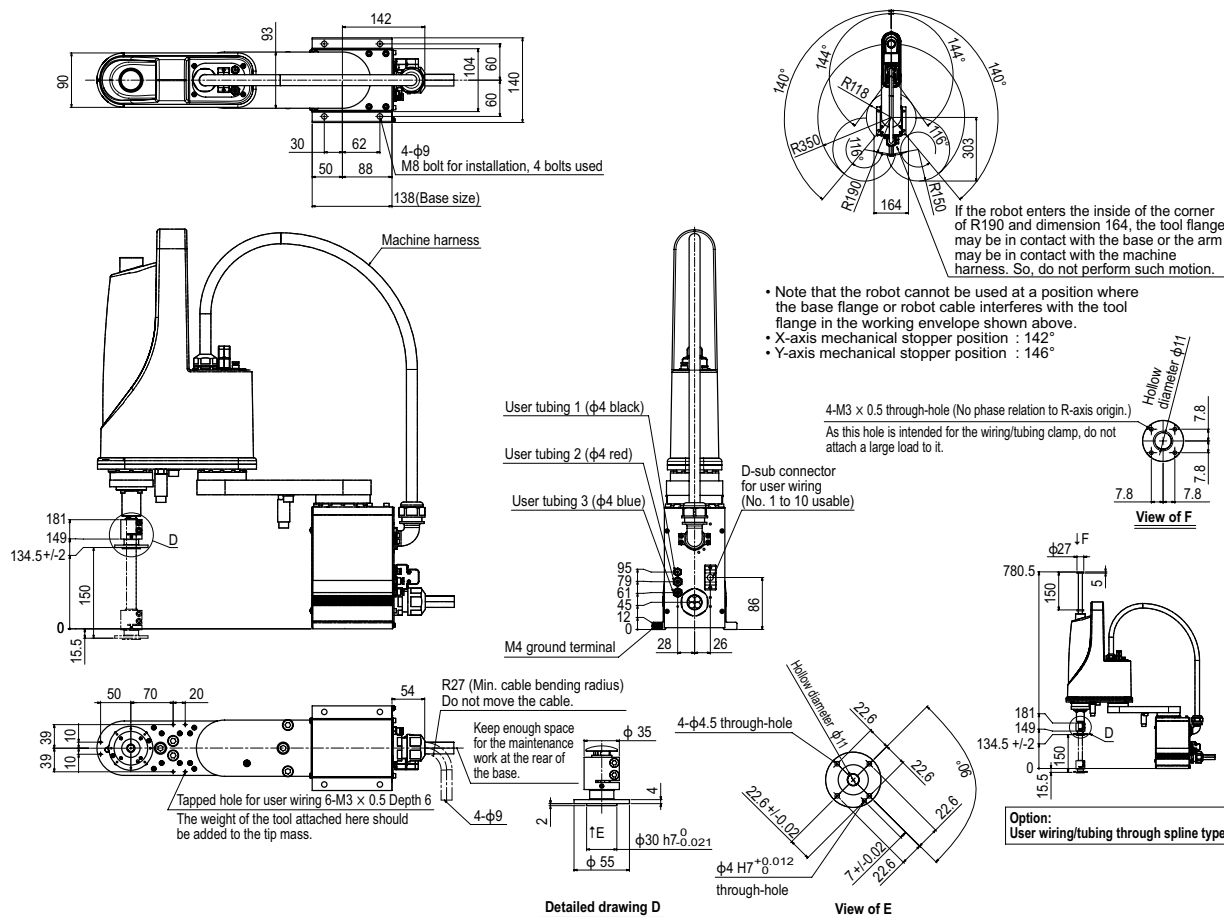
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot/>

## YK350XG



## YK350XG Tool flange mount type



Linear conveyor modules LCMR200	Single-axis robots GX	Linear conveyor modules LCM100	SCARA robots YK-X	Single-axis robots Robonity	Linear motor single-axis robots PHASER	Single-axis robots FLIP-X	Compact single-axis robots TRANSERO	Cartesian robots XY-X	Pick & place robots YP-X	CLEAN	CONTROLLER	INFORMATION	Orbit/ Extra small type	Small type	Large type	Wall mount / inverse type	Dust-proof & drip-proof type
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# YK400XE-4

Standard type: Small type

● LOW COST HIGH PERFORMANCE MODEL



- Arm length 400mm
- Maximum payload 4kg

## Ordering method

<b>YK400XE - 4</b>	<b>150</b>					<b>RCX340-4</b>			
Model	Maximum payload	Return-to-origin method S: Sensor T: Stroke end	Z axis stroke	Hollow shaft No entry: None S: With hollow shaft	Brake release switch No entry: None BS: With brake release switch	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A to E (OP.A to E)
						Specify various controller setting items. RCX340 ▶ <b>P.636</b>			

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	+/-132°	+/-150°	-	+/-360°
	AC servo motor output	200 W	100 W	100 W	100 W
Deceleration mechanism	Transmission method	Direct-coupled		Timing belt	
	Motor to speed reducer	Direct-coupled		Timing belt	
	Speed reducer to output	Direct-coupled		Timing belt	
Repeatability <sup>Note 1</sup>		+/-0.01 mm	+/-0.01 mm	+/-0.01°	
Maximum speed		6 m/sec	1.1 m/sec	2600 °/sec	
Maximum payload		4 kg (Standard specification, Option specifications <sup>Note 4</sup> ), 3 kg (Option specifications <sup>Note 5</sup> )			
Standard cycle time: with 2kg payload <sup>Note 2</sup>		0.41 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		0.05 kgm <sup>2</sup>			
User wiring		0.2 sq × 10 wires			
User tubing (Outer diameter)		φ 4 × 3			
Travel limit		1. Soft limit 2. Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		17 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions and performing the coarse positioning arch operation.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and offset amount for R-axis moment of inertia settings.

Note 4. Maximum payload of the standard or option specifications (brake release switch type) is 4 kg.

Note 5. Maximum payload of the option specifications (user wiring/tubing through shaft type) is 3 kg.

## Controller

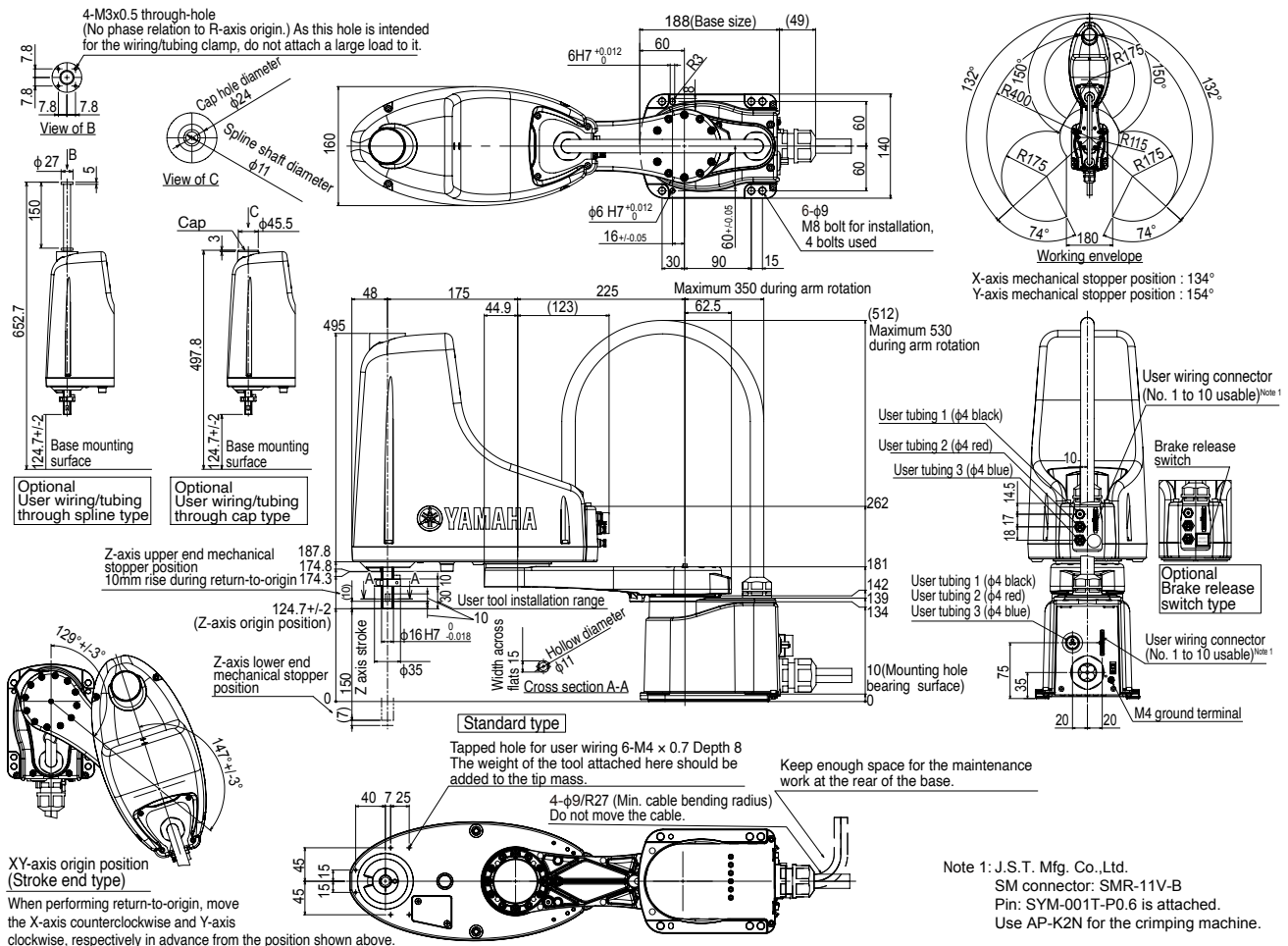
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be restricted by adding the X- and Y-axis mechanical stoppers. (The maximum movement range was set at shipment.)  
See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot/>

## YK400XE-4 Shipment on February 2025 or later





## Shipment on January 2025 or earlier

4-M3 × 0.5 through-hole  
(No phase relation to R-axis origin.)  
As this hole is intended for the wiring/tubing clamp, do not attach a large load to it.

**View of B**

652.7  
124.7+/-2  
150  
 $\phi 27.1_B$   
7.8  
7.8  
7.8

**Option**  
User wiring/tubing through shaft type

Width across flat 15  
Hollow diameter  $\phi 11$

**Cross section A-A**

Z-axis upper end mechanical stopper position 187.8  
174.8  
174.3  
10mm rise during return-to-origin  
Z-axis origin position  
124.7+/-2 (Z-axis origin position)  
Z-axis lower end mechanical stopper position  
147+/-3°

**Standard type**

Tapped hole for user wiring: 6-M4 × 0.7 Depth 8  
The weight of the tool attached here should be added to the tip mass.  
4-φ9 Min. cable bending radius R27(\*)  
\*Do not move the cable.

Keep enough space for the maintenance work at the rear of the base.

**Note 1:** J.S.T. Mfg. Co., Ltd.  
SM connector: SMR-11V-B  
Pin: SYM-001T-P0.6 is attached.  
Use AP-K2N for the crimping machine.

4-M3 × 0.5 through-hole  
(No phase relation to R-axis origin.)  
As this hole is intended for the wiring/tubing clamp, do not attach a large load to it.

**View of B**

652.7  
124.7+/-2  
150  
 $\phi 27.1_B$   
7.8  
7.8  
7.8

**Option**  
User wiring/tubing through shaft type

Width across flat 15  
Hollow diameter  $\phi 11$

**Cross section A-A**

Z-axis upper end mechanical stopper position 187.8  
174.8  
174.3  
10mm rise during return-to-origin  
Z-axis origin position  
124.7+/-2 (Z-axis origin position)  
Z-axis lower end mechanical stopper position  
147+/-3°

**Standard type**

Tapped hole for user wiring: 6-M4 × 0.7 Depth 8  
The weight of the tool attached here should be added to the tip mass.  
4-φ9 Min. cable bending radius R27(\*)  
\*Do not move the cable.

Keep enough space for the maintenance work at the rear of the base.

**Note 1:** J.S.T. Mfg. Co., Ltd.  
SM connector: SMR-11V-B  
Pin: SYM-001T-P0.6 is attached.  
Use AP-K2N for the crimping machine.











# YK500XG

Standard type: Medium type



- Arm length 500mm
- Maximum payload 10kg

## Ordering method

**YK500XG**

**RCX340-4**

Model	Z axis stroke	Tool flange	Cable
	200: 200mm 300: 300mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	200 mm	300 mm	200 mm 300 mm	—
		+/-130 °	+/-145 °	—	+/-360 °
AC servo motor output		400 W	200 W	200 W	200 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability	Note 1	+/-0.01 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		7.6 m/sec	2.3 m/sec 1.7 m/sec	1700 °/sec	
Maximum payload		10 kg (Standard type), 9 kg (Tool flange mount type)			
Standard cycle time: with 2kg payload	Note 2	0.42 sec			
R-axis tolerable moment of inertia	Note 3	0.30 kgm <sup>2</sup>			
User wiring		0.2 sq × 20 wires			
User tubing (Outer diameter)		φ 6 × 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		30 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

## Controller

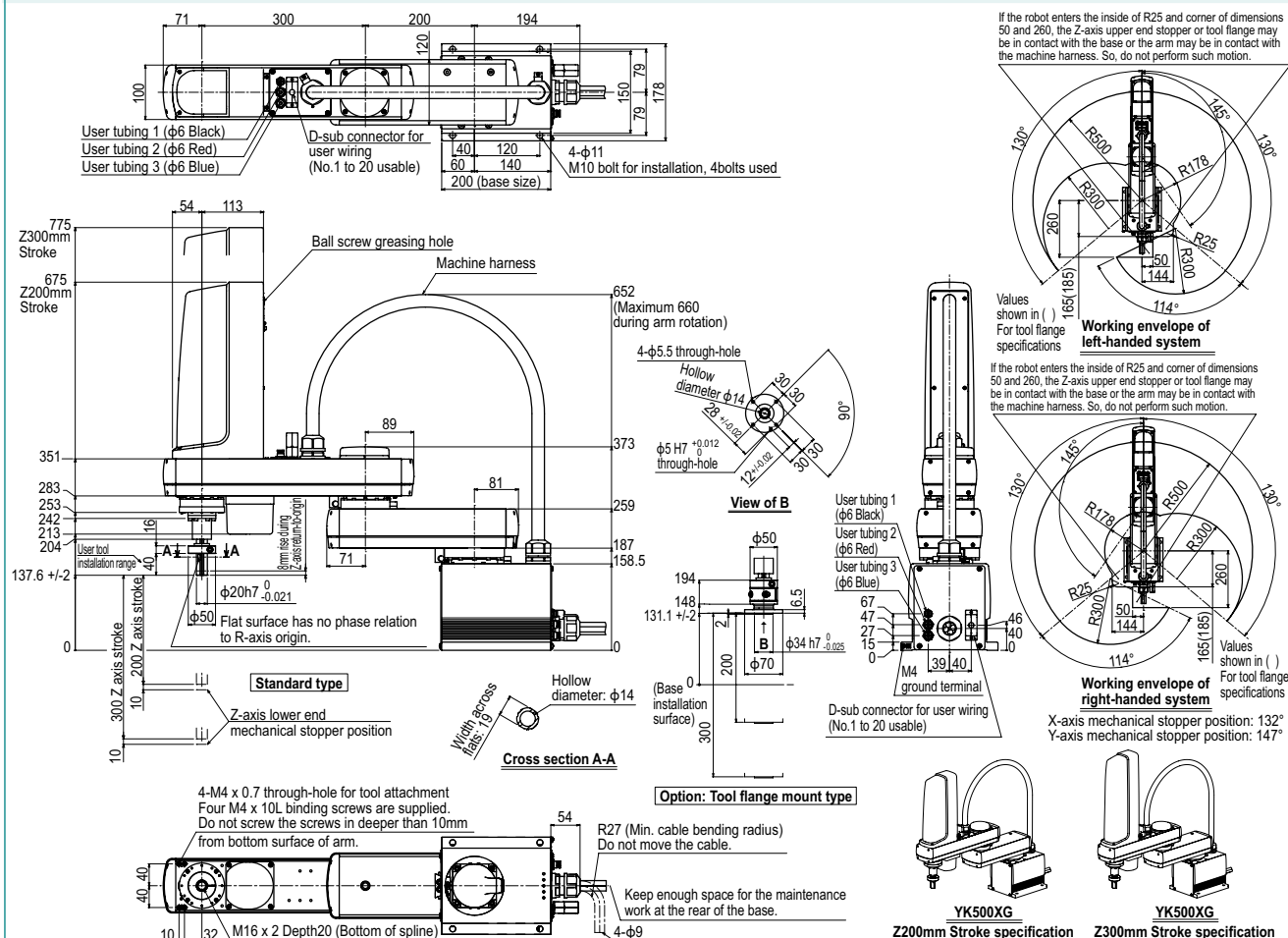
Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
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## YK500XG



# YK510XE-10

Standard type: Medium type

● LOW COST HIGH PERFORMANCE MODEL



● Arm length 510mm ● Maximum payload 10kg

## Ordering method

YK510XE-10-200

Model	Maximum payload	Z axis stroke	Tool flange	Hollow shaft/cap	Brake release switch	Cable	Controller / Number of controllable axes	Safety standard	Option A to E (OP.A to E)	Absolute battery
			No entry: None F: With tool flange	No entry: None S: With hollow shaft C: With hollow cap	No entry: None BS: With brake release switch	3L: 3.5m 5L: 5m 10L: 10m				

RCX340-4

Specify various controller setting items.

RCX340 ▶ P.636

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	235 mm	275 mm	200 mm	-
		+/-134 °	+/-152 °	-	+/-360 °
AC servo motor output		400 W	200 W	200 W	200 W
Deceleration mechanism	Transmission method	Direct-coupled		Timing belt	
	Motor to speed reducer	Direct-coupled		Timing belt	
	Speed reducer to output	Direct-coupled		Timing belt	
Repeatability	Note 1	+/-0.01 mm		+/-0.01 mm	+/-0.01 °
Maximum speed		7.8 m/sec		2 m/sec	2600 °/sec
Maximum payload		10 kg (Standard specification, Option specifications Note 4), 9 kg (Option specifications Note 5)			
Standard cycle time: with 2kg payload	Note 2	0.38 sec			
R-axis tolerable moment of inertia	Note 3	0.3 kgm <sup>2</sup>			
User wiring		0.2 sq × 20 wires			
User tubing (Outer diameter)		φ 6 × 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		25 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions and performing the coarse positioning arch operation.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and offset amount for R-axis moment of inertia settings.

Note 4. Maximum payload of the standard or option specifications (brake release switch type, user wiring/tubing through cap type) is 10 kg.

Note 5. Maximum payload of the option specifications (tool flange mount type, user wiring/tubing through shaft type) is 9 kg.

## Controller

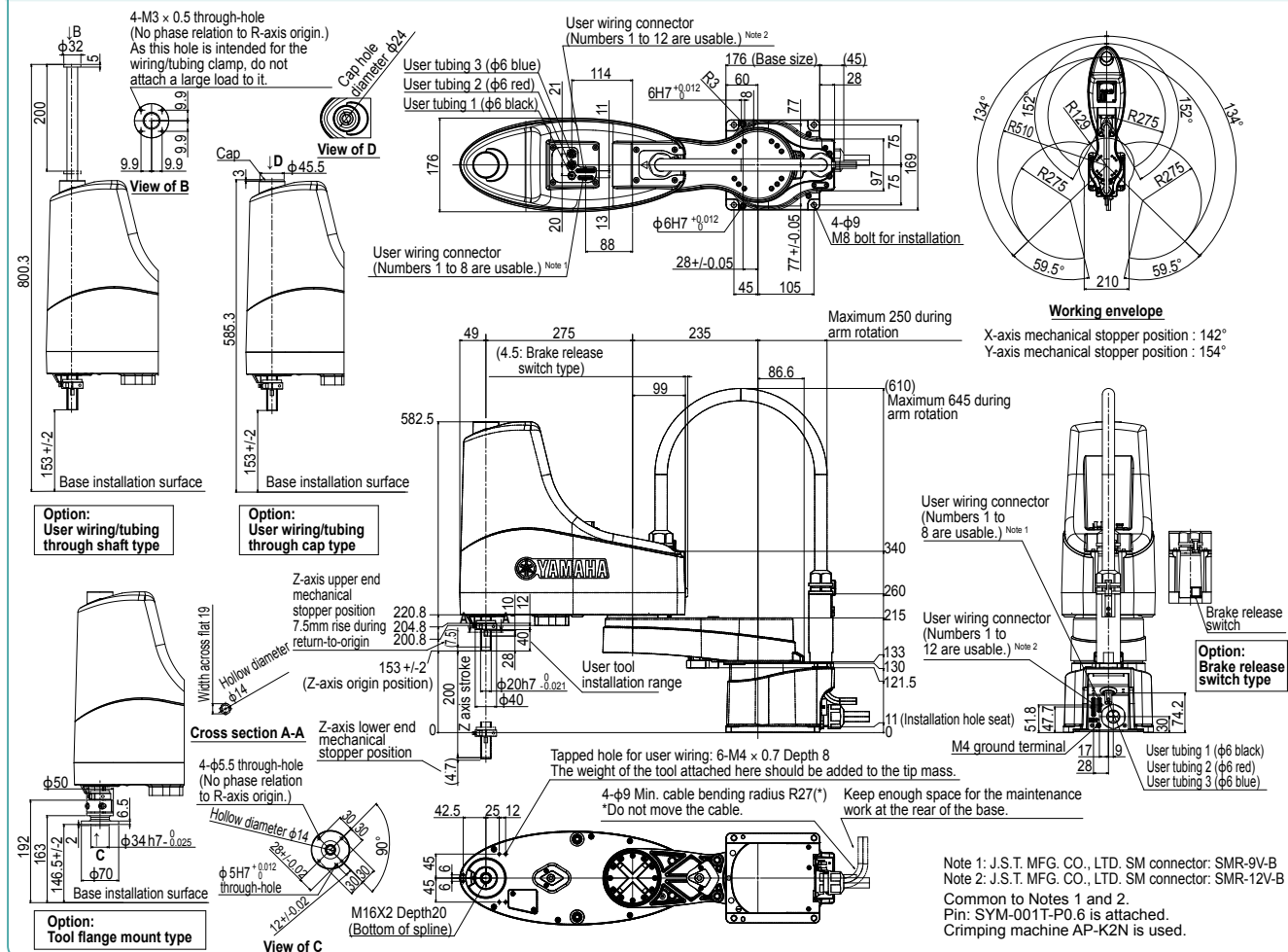
Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be restricted by adding the X- and Y-axis mechanical stoppers. (The maximum movement range was set at shipment.) See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot/>

## YK510XE-10



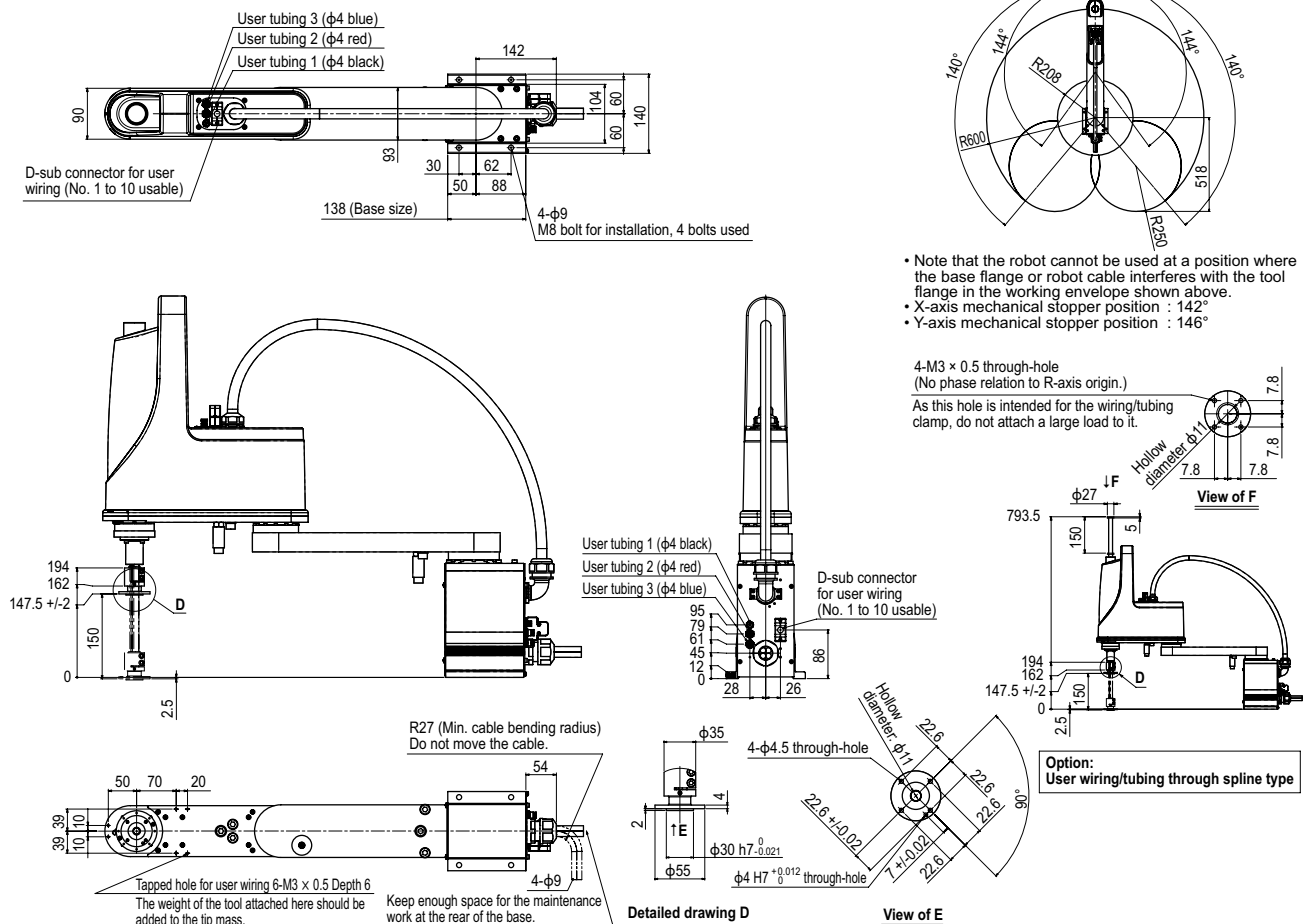
Controller

RCX340 ▶ 636



## 9

## YK600XGL Tool flange mount type



# YK600XG

Standard type: Medium type



- Arm length 600mm
- Maximum payload 10kg

## Ordering method

**YK600XG**

**RCX340-4**

Model	Z axis stroke	Tool flange	Cable
	200: 200mm 300: 300mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
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Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	300 mm	300 mm	200 mm 300 mm	—
		+/-130 °	+/-145 °	—	+/-360 °
AC servo motor output		400 W	200 W	200 W	200 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability	Note 1	+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed		8.4 m/sec		2.3 m/sec 1.7 m/sec	1700 °/sec
Maximum payload		10 kg (Standard type), 9 kg (Tool flange mount type)			
Standard cycle time: with 2kg payload	Note 2	0.43 sec			
R-axis tolerable moment of inertia	Note 3	0.30 kgm <sup>2</sup>			
User wiring		0.2 sq × 20 wires			
User tubing (Outer diameter)		φ 6 × 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		31 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

## Controller

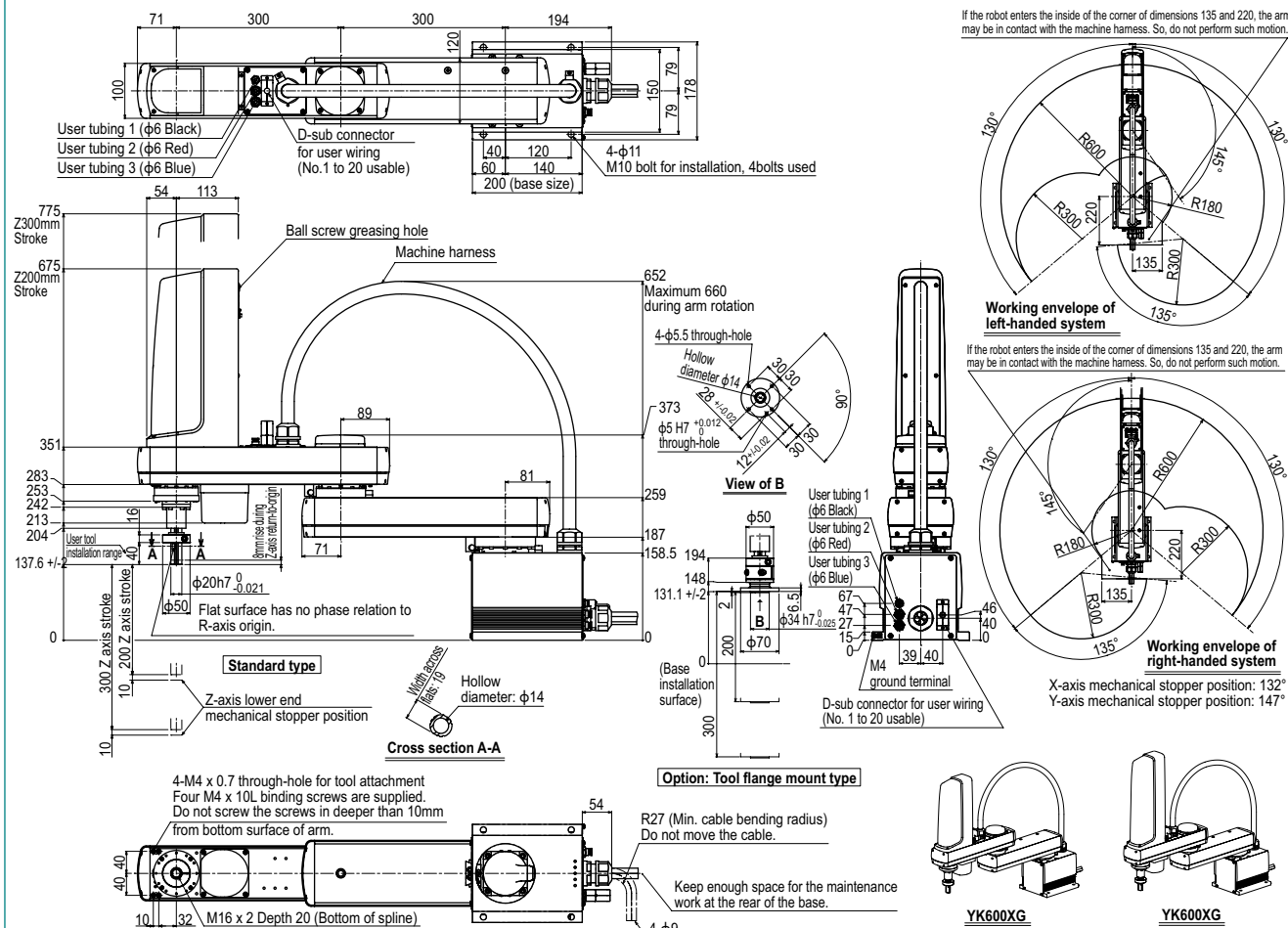
Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot/>

## YK600XG



# YK610XE-10

Standard type: Medium type

● LOW COST HIGH PERFORMANCE MODEL



- Arm length 610mm
- Maximum payload 10kg

## Ordering method

YK610XE-10-200

Model	Maximum payload	Z axis stroke	Tool flange	Hollow shaft/cap	Brake release switch	Cable	Controller / Number of controllable axes	Safety standard	Option A to E (OP.A to E)	Absolute battery
			No entry: None F: With tool flange	No entry: None S: With hollow shaft C: With hollow cap	No entry: None BS: With brake release switch	3L: 3.5m 5L: 5m 10L: 10m				

RCX340-4

Specify various controller setting items.

RCX340 ▶ P.636

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	335 mm	275 mm	200 mm	-
		+/-134 °	+/-152 °	-	+/-360 °
AC servo motor output		400 W	200 W	200 W	200 W
Deceleration mechanism	Transmission method	Direct-coupled		Timing belt	
	Motor to speed reducer	Direct-coupled		Timing belt	
	Speed reducer to output	Direct-coupled		Timing belt	
Repeatability <sup>Note 1</sup>		+/-0.01 mm	+/-0.01 mm	+/-0.01 °	
Maximum speed		8.6 m/sec	2 m/sec	2600 °/sec	
Maximum payload		10 kg (Standard specification, Option specifications <sup>Note 4</sup> ), 9 kg (Option specifications <sup>Note 5</sup> )			
Standard cycle time: with 2kg payload <sup>Note 2</sup>		0.39 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		0.3 kgm <sup>2</sup>			
User wiring		0.2 sq × 20 wires			
User tubing (Outer diameter)		φ 6 × 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		25 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions and performing the coarse positioning arch operation.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and offset amount for R-axis moment of inertia settings.

Note 4. Maximum payload of the standard or option specifications (brake release switch type, user wiring/tubing through cap type) is 10 kg.

Note 5. Maximum payload of the option specifications (tool flange mount type, user wiring/tubing through shaft type) is 9 kg.

## Controller

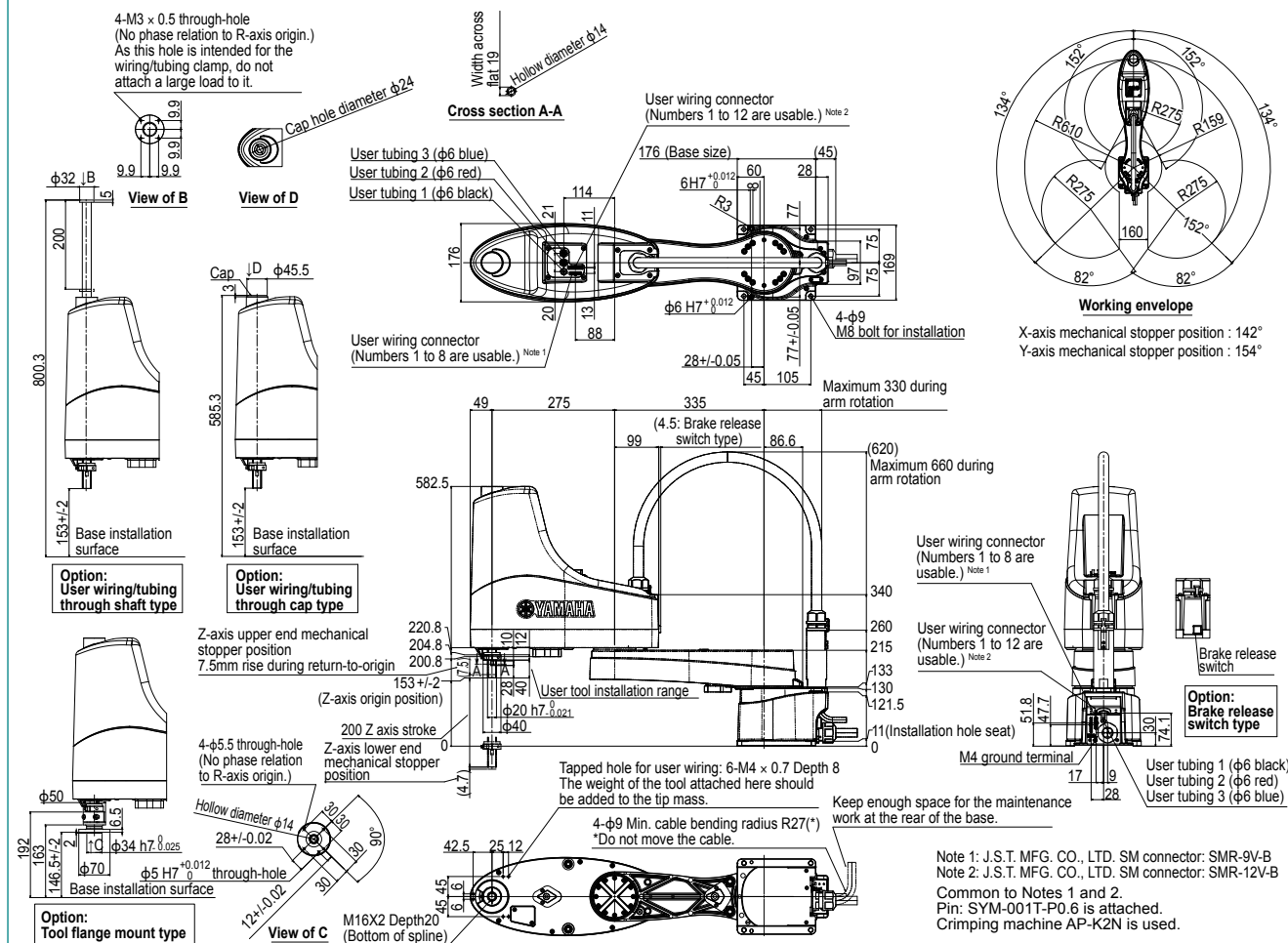
Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be restricted by adding the X- and Y-axis mechanical stoppers. (The maximum movement range was set at shipment.) See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
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## YK610XE-10



Controller

RCX340 ▶ 636

# YK600XGH

Standard type: Medium type

- Arm length 600mm
- Maximum payload 20kg

## Ordering method

<b>YK600XGH</b>				<b>RCX340-4</b>							
Model	Z axis stroke 200: 200mm 400: 400mm	Tool flange No entry: None F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	200 mm	400 mm	200 mm 400 mm	—
		+/-130 °	+/-150 °	—	+/-360 °
AC servo motor output		750 W	400 W	400 W	200 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability	Note 1	+/-0.02 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		7.7 m/sec	2.3 m/sec 1.7 m/sec	920 °/sec	
Maximum payload		20 kg (Standard type), 19 kg (Tool flange mount type)			
Standard cycle time: with 2kg payload	Note 2	0.47 sec			
R-axis tolerable moment of inertia	Note 3	1.0 kgm <sup>2</sup>			
User wiring		0.2 sq × 20 wires			
User tubing (Outer diameter)		φ 6 × 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		Z axis 200 mm: 48 kg Z axis 400 mm: 50 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

## Controller

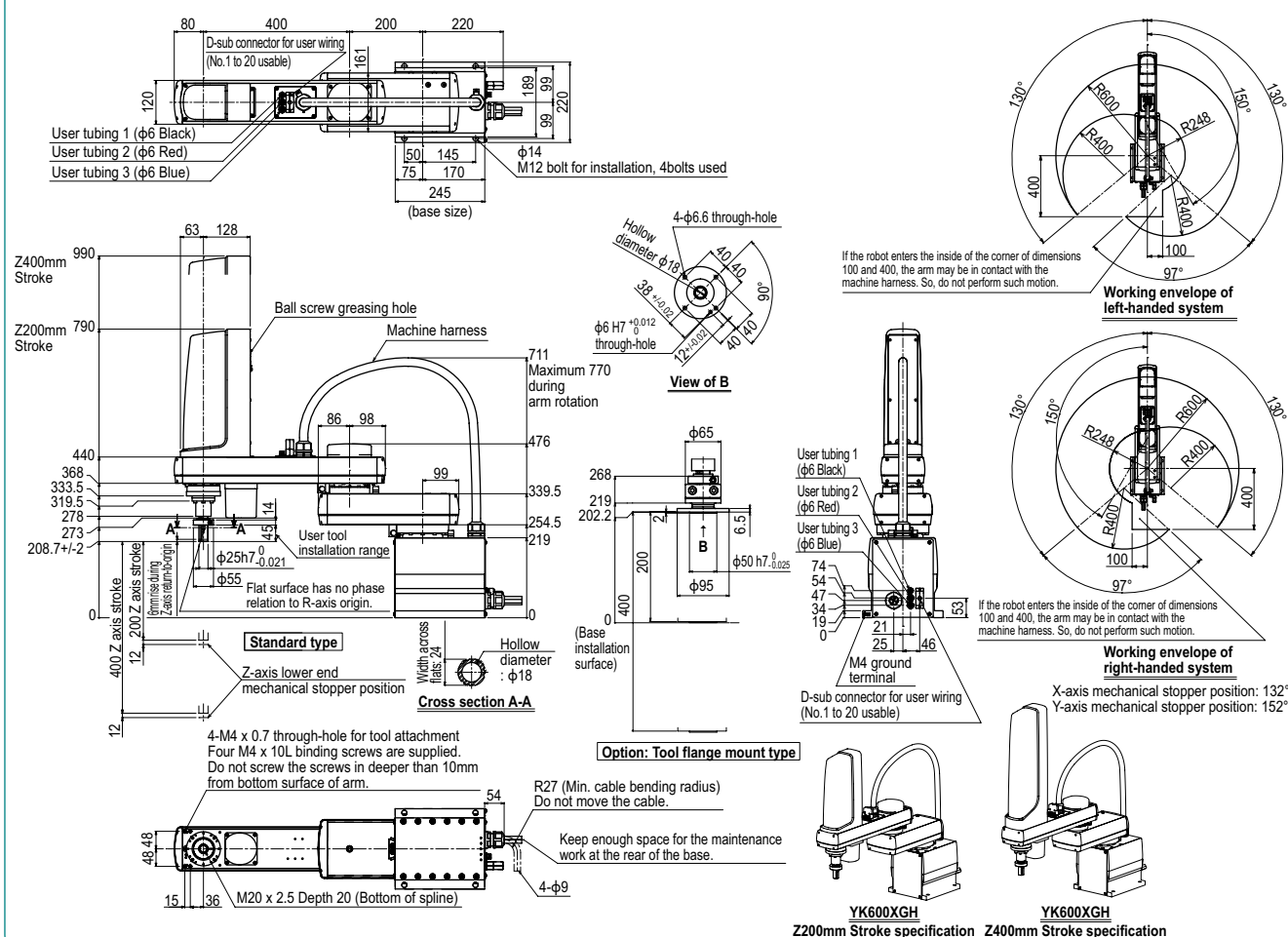
Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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## YK600XGH





# YK700XGL

Standard type: Large type

● Arm length 700mm ● Maximum payload 10kg

Note. This model is a special order product. Please consult us for delivery time.

## Ordering method

<b>YK700XGL</b>				<b>RCX340-4</b>							
Model	Z axis stroke 200: 200mm 300: 300mm	Tool flange No entry: None F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	400 mm	300 mm	200 mm	300 mm
		+/-130 °	+/-145 °	-	+/-360 °
AC servo motor output		400 W	200 W	200 W	200 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability	Note 1	+/-0.01 mm	+/-0.01 mm	+/-0.005 °	
Maximum speed		9.2 m/sec	2.3 m/sec	1.7 m/sec	1700 °/sec
Maximum payload		10 kg (Standard type), 9 kg (Tool flange mount type)			
Standard cycle time: with 2kg payload	Note 2	0.50 sec			
R-axis tolerable moment of inertia	Note 3	0.30 kgm <sup>2</sup>			
User wiring		0.2 sq x 20 wires			
User tubing (Outer diameter)		φ6 x 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5, 10 m			
Weight		32 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

## Controller

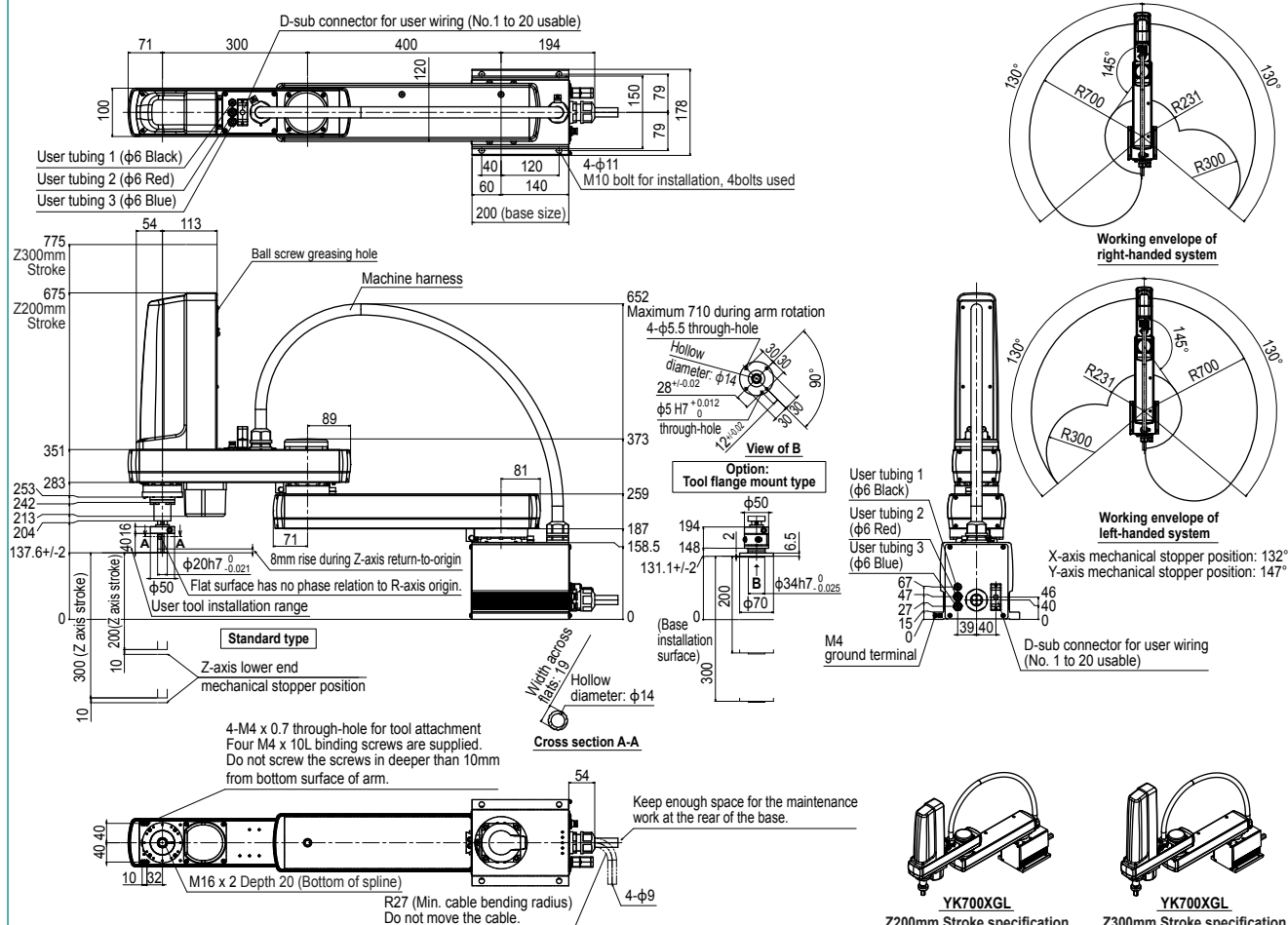
Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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## YK700XGL



Controller

**RCX340 ▶ 636**

# YK710XE-10

Standard type: Large type

● LOW COST HIGH PERFORMANCE MODEL



- Arm length 710mm
- Maximum payload 10kg

## Ordering method

**YK710XE - 10 - 200**

Model	Maximum payload	Z axis stroke	Tool flange	Hollow shaft/cap	Brake release switch	Cable	Controller / Number of controllable axes	Safety standard	Option A to E (OP.A to E)	Absolute battery
			No entry: None F: With tool flange	No entry: None S: With hollow shaft C: With hollow cap	No entry: None BS: With brake release switch	3L: 3.5m 5L: 5m 10L: 10m				

**RCX340-4**

Specify various controller setting items.

RCX340 ▶ **P.636**

## Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		435 mm	275 mm	200 mm	-
	Rotation angle		+/-134 °	+/-152 °	-	+/-360 °
AC servo motor output			400 W	200 W	200 W	200 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled		Timing belt	
		Speed reducer to output				
Repeatability <sup>Note 1</sup>			+/-0.02 mm		+/-0.01 mm	+/-0.01 °
Maximum speed			9.5 m/sec		2 m/sec	2600 °/sec
Maximum payload			10 kg (Standard specification, Option specifications <sup>Note 4</sup> ), 9 kg (Option specifications <sup>Note 5</sup> )			
Standard cycle time: with 2kg payload <sup>Note 2</sup>			0.42 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>			0.3 kgm <sup>2</sup>			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			φ 6 × 3			
Travel limit			1.Soft limit   2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m   Option: 5 m, 10 m			
Weight			26 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions and performing the coarse positioning arch operation.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and offset amount for R-axis moment of inertia settings.

Note 4. Maximum payload of the standard or option specifications (brake release switch type, user wiring/tubing through cap type) is 10 kg.

Note 5. Maximum payload of the option specifications (tool flange mount type, user wiring/tubing through shaft type) is 9 kg.

## Controller

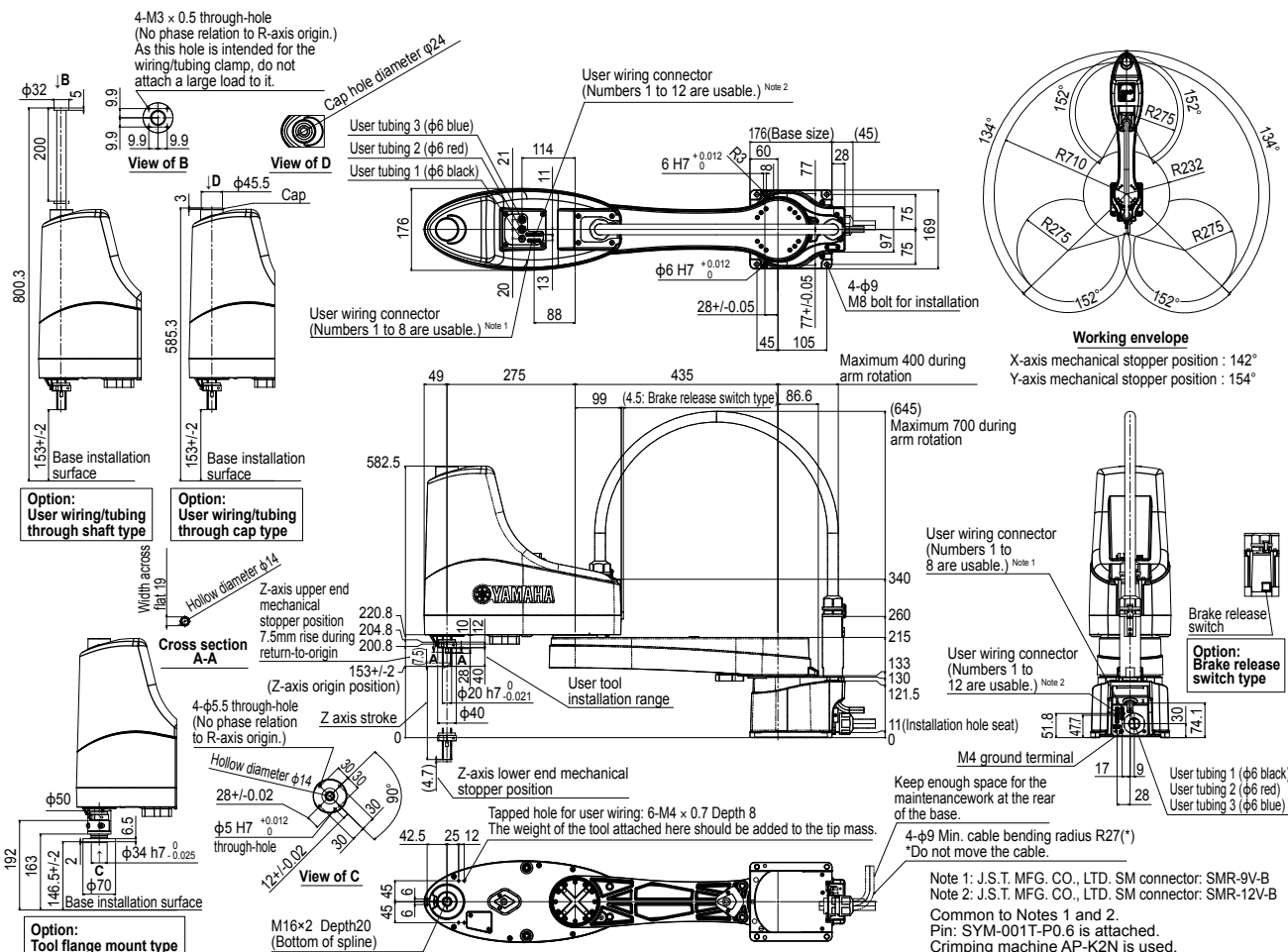
Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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## YK710XE-10





# YK700XG

Standard type: Large type



- Arm length 700mm
- Maximum payload 20kg

## Ordering method

**YK700XG**

Model	Z axis stroke	Tool flange
	200: 200mm 400: 400mm	No entry: None F: With tool flange

**RCX340-4**

Cable
3L: 3.5m 5L: 5m 10L: 10m

Controller / Number of controllable axes

Safety standard

Option A (OP.A)

Option B (OP.B)

Option C (OP.C)

Option D (OP.D)

Option E (OP.E)

Absolute battery

Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	300 mm	400 mm	200 mm	400 mm
		+/-130 °	+/-150 °	-	+/-360 °
AC servo motor output		750 W	400 W	400 W	200 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability	Note 1	+/-0.02 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		8.4 m/sec	2.3 m/sec	1.7 m/sec	920 °/sec
Maximum payload		20 kg (Standard type), 19 kg (Tool flange mount type)			
Standard cycle time: with 2kg payload	Note 2	0.42 sec			
R-axis tolerable moment of inertia	Note 3	1.0 kgm <sup>2</sup>			
User wiring		0.2 sq x 20 wires			
User tubing (Outer diameter)		φ 6 x 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		Z axis 200 mm: 50 kg Z axis 400 mm: 52 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

## Controller

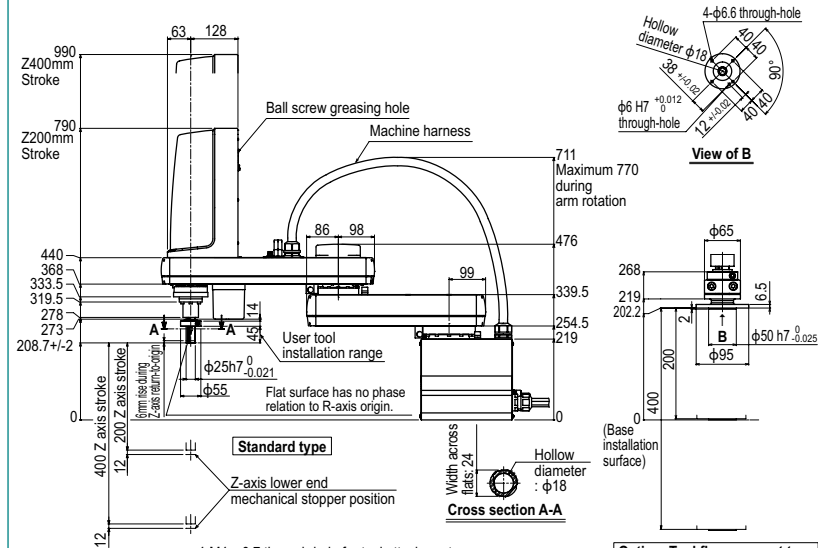
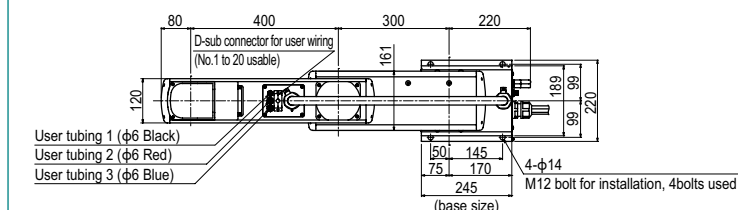
Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

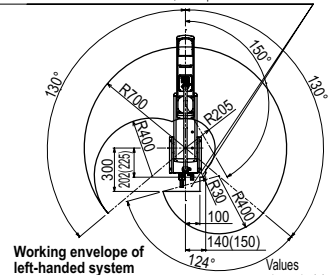
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
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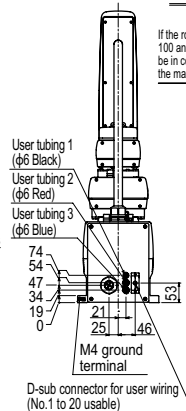
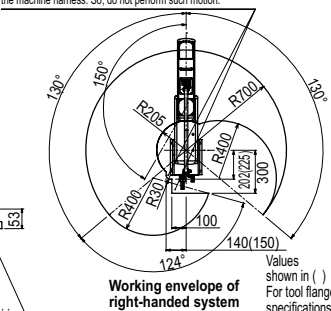
## YK700XG



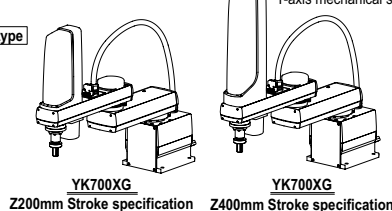
If the robot enters the inside of R30 and corner of dimensions 100 and 300, the Z-axis upper end stopper or tool flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.



If the robot enters the inside of R30 and corner of dimensions 100 and 300, the Z-axis upper end stopper or tool flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.



X-axis mechanical stopper position: 132°  
Y-axis mechanical stopper position: 152°



Controller

**RCX340 ▶ 636**

# YK800XG




### Standard type: Large type

- Arm length 800mm
- Maximum payload 20kg



### Ordering method

# YK800XG

		
<b>Z axis stroke</b> 200: 200mm 400: 400mm	<b>Tool flange</b> No entry: None F: With tool flange	<b>Cable</b> 3L: 3.5m 5L: 5m 9L: 10m

## RCX340-4

Controller / Number of controllable axes	Safety standard	Option A (OPA)	Option B (OPB)	Option C (OPC)	Option D (OPD)	Option E (OPE)	Absolute battery
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Specify various controller setting items. RCX340 ▶ P.636

## ■ Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		400 mm	400 mm	200 mm	400 mm
	Rotation angle		+/-130 °	+/-150 °	-	
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>			+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			9.2 m/sec		2.3 m/sec	1.7 m/sec
Maximum payload			20 kg (Standard type), 19 kg (Tool flange mount type)			
Standard cycle time: with 2kg payload <sup>Note 2</sup>			0.48 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>			1.0 kgm <sup>2</sup>			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			φ 6 × 3			
Travel limit			1.Soft limit   2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m   Option: 5 m, 10 m			
Weight			Z axis 200 mm: 52 kg   Z axis 400 mm: 54 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

#### Controller

Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

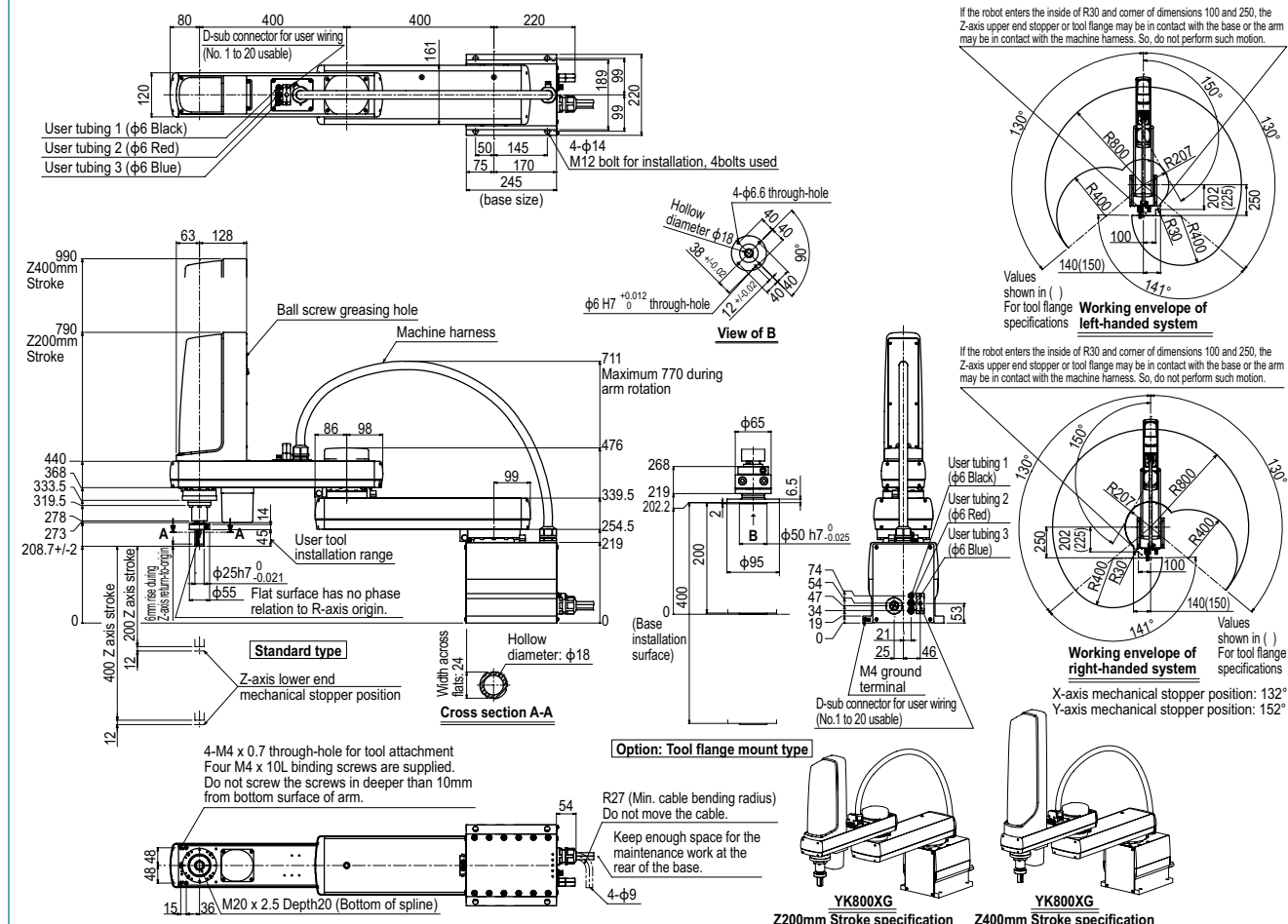
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)

See our robot manuals (installation manuals) for detailed information.

**Note.** To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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**<https://global.yamaha-motor.com/business/robot>**

## YK800XG



# YK900XG

Standard type: Large type

- Arm length 900mm
- Maximum payload 20kg



## Ordering method

**YK900XG**

**RCX340-4**

Model	Z axis stroke	Tool flange	Cable	Controller /	Safety	Option A	Option B	Option C	Option D	Option E	Absolute
	200: 200mm 400: 400mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m	Number of controllable axes	standard	(OP.A)	(OP.B)	(OP.C)	(OP.D)	(OP.E)	battery

Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
		500 mm	400 mm	200 mm / 400 mm	—
	Rotation angle	+/-130 °	+/-150 °	—	+/-360 °
AC servo motor output		750 W	400 W	400 W	200 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability	Note 1	+/-0.02 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		9.9 m/sec	2.3 m/sec / 1.7 m/sec	920 °/sec	
Maximum payload		20 kg (Standard type), 19 kg (Tool flange mount type)			
Standard cycle time: with 2kg payload	Note 2	0.49 sec			
R-axis tolerable moment of inertia	Note 3	1.0 kgm <sup>2</sup>			
User wiring		0.2 sq x 20 wires			
User tubing (Outer diameter)		φ 6 x 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		Z axis 200 mm: 54 kg Z axis 400 mm: 56 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

## Controller

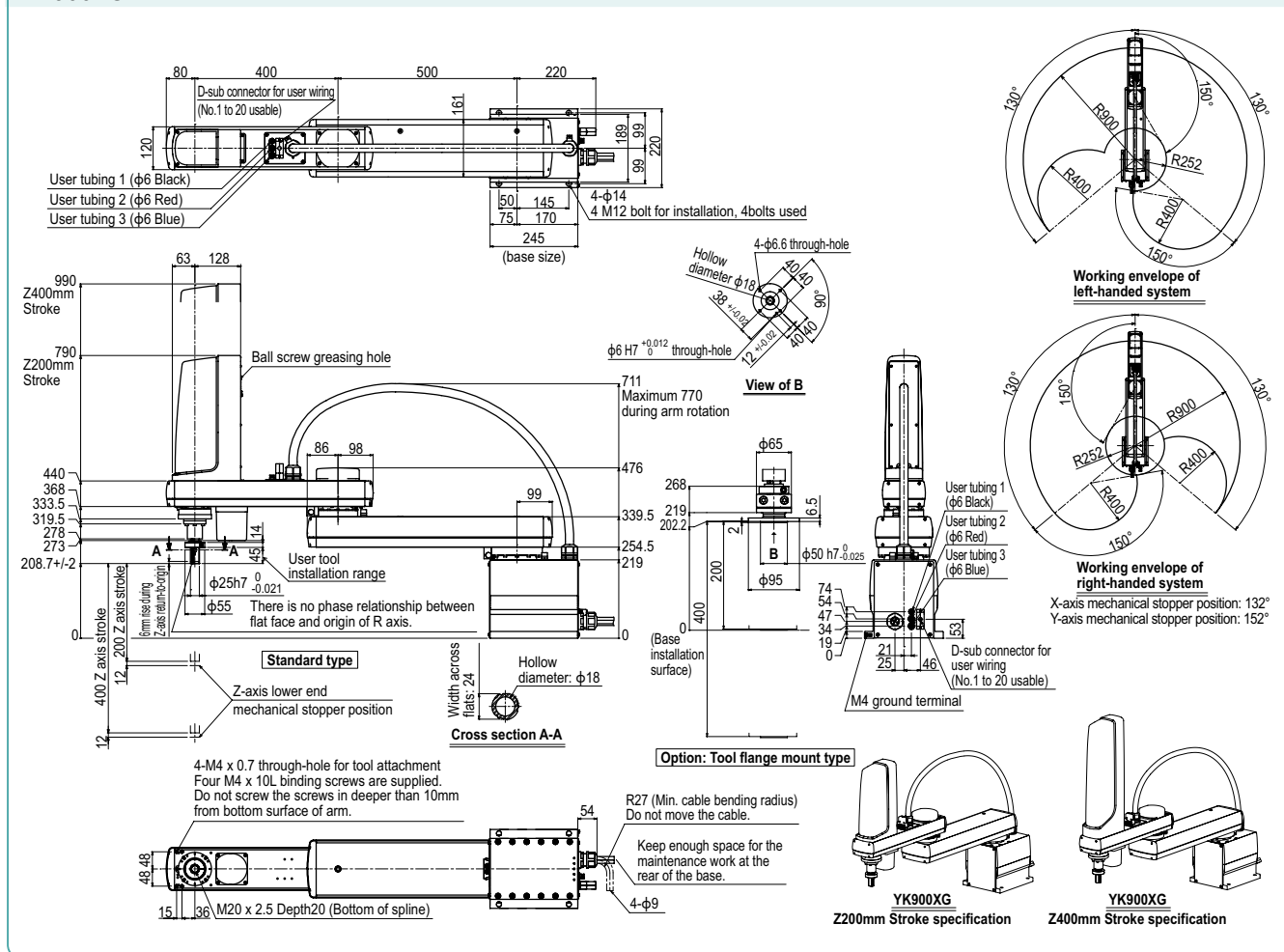
Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
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## YK900XG



Controller

**RCX340 ▶ 636**

100%



# YK1200X

Standard type: Large type

- Arm length 1200mm
- Maximum payload 50kg



## Ordering method

YK1200X - 400

RCX340-4

Model	Z axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Option A (O.P.A)	Option B (O.P.B)	Option C (O.P.C)	Option D (O.P.D)	Option E (O.P.E)	Absolute battery
		3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	600 mm	600 mm	400 mm	—
		+/-125 °	+/-150 °	—	+/-180 °
AC servo motor output		900 W	800 W	600 W	400 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled	Timing belt transmission	Timing belt transmission
	Speed reducer to output	Direct-coupled	Direct-coupled	Direct-coupled	Direct-coupled
Repeatability <sup>Note 1</sup>		+/-0.05 mm	+/-0.02 mm	+/-0.005 °	
Maximum speed		7.4 m/sec	0.75 m/sec	600 °/sec	
Maximum payload		50 kg			
Standard cycle time: with 2kg payload <sup>Note 2</sup>		0.91 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		2.45 kgm <sup>2</sup>			
User wiring		0.2 sq x 20 wires			
User tubing (Outer diameter)		φ 6 x 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		124 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

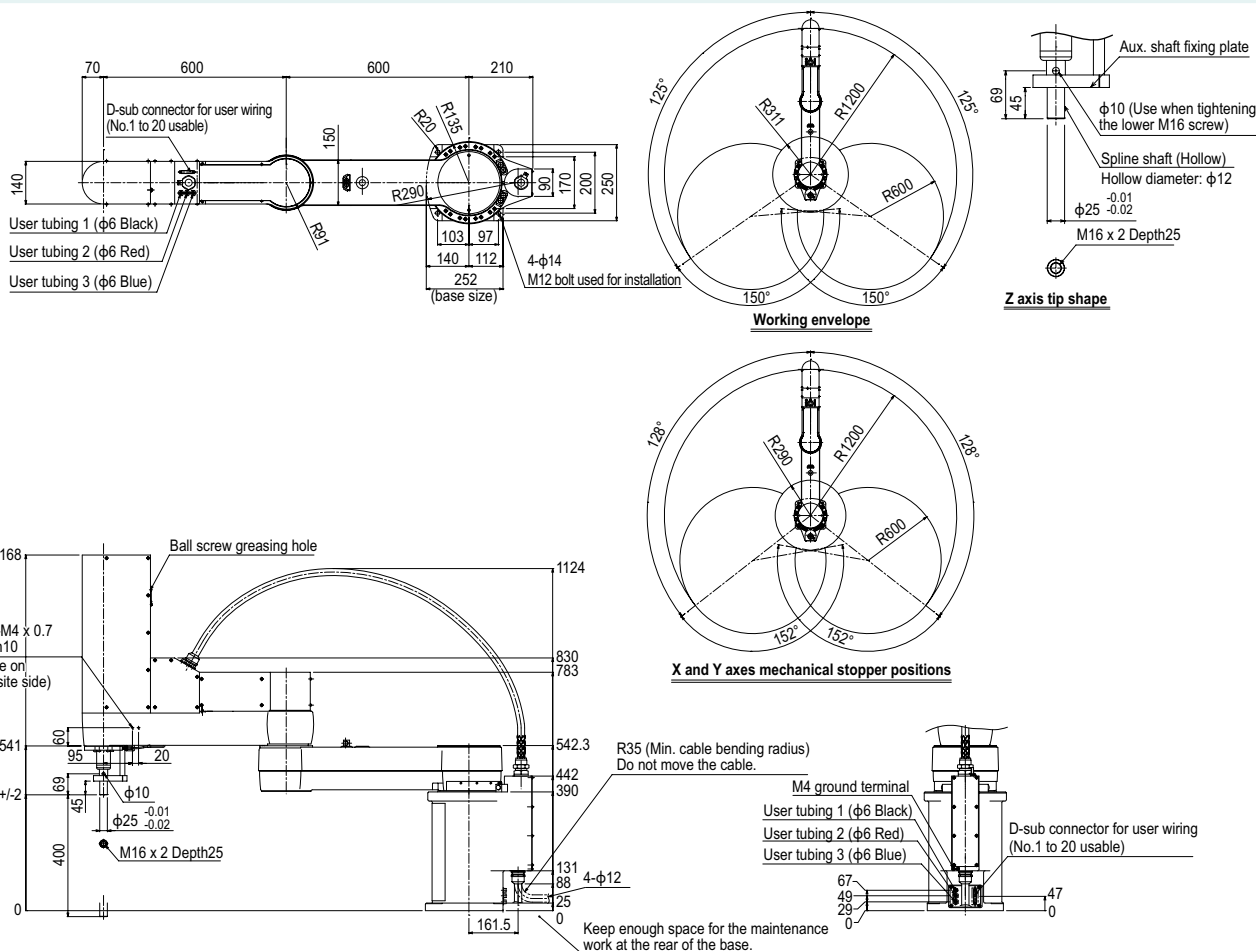
## Controller

Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
See our robot manuals (installation manuals) for detailed information.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot/>

## YK1200X



Controller

RCX340 ▶ **636**



# YK1200XG

### Standard type: Large type



- Arm length 1200mm
- Maximum payload 50kg

### Ordering method

# YK1200XG-400

[illegible]Specify various controller setting items. RCX340 ▶ **P.636**

## ■ Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		600 mm	600 mm	400 mm	—
	Rotation angle		+/-130 °	+/-150 °	+/-360 °	+/-360 °
AC servo motor output			950 W	400 W	750 W	400 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>			+/-0.05 mm		+/-0.02 mm	+/-0.005 °
Maximum speed			7.7 m/sec		1.6 m/sec	600 °/sec
Maximum payload			50 kg			
Standard cycle time: with 5kg payload <sup>Note 2</sup>			0.61 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>			2.45 kgm <sup>2</sup>			
User wiring			0.2 sq × 12 wires			
User tubing (Outer diameter)			φ 6 × 3			
Travel limit			1.Soft limit   2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m   Option: 5 m, 10 m			
Weight			96 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. User wiring stays (optional) are parts required for additional installation of user wiring. Installation on the robot must be performed by the customer.

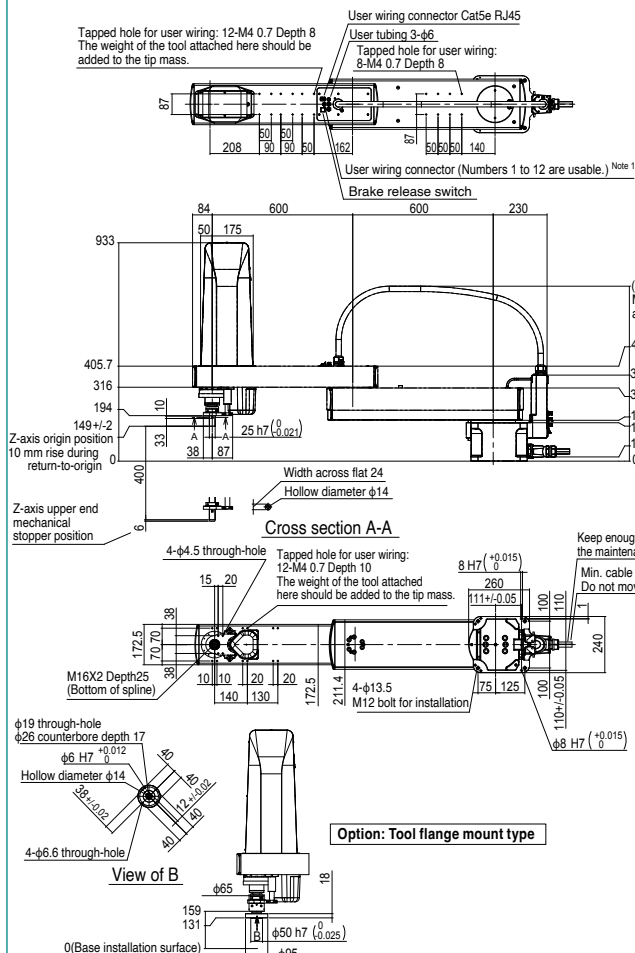
#### Controller

Controller	Power capacity (VA)	Operation method
RCX341	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

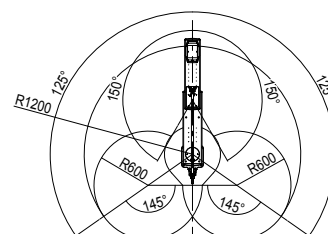
Note: The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
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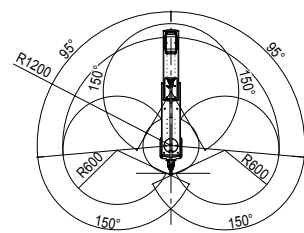
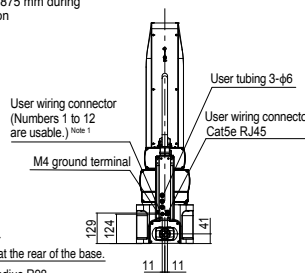
## YK1200XG



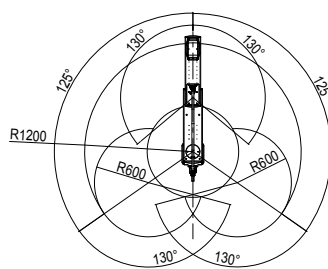
Note 1  
HIROSE ELECTRIC CO., LTD.  
Housing: DF62B-13S-2.2C(11)  
Contact: DF62-2428SC included



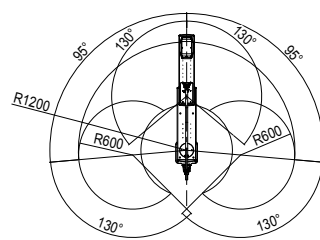
Working envelope(Standard)  
X-axis mechanical stopper position:130°  
Y-axis mechanical stopper position:154°



Working envelope(Additional stopper X-axis only)  
X-axis mechanical stopper position:100°  
Y-axis mechanical stopper position:154°



Working envelope(Additional stopper Y-axis only)  
X-axis mechanical stopper position:130°  
Y-axis mechanical stopper position:133°



Working envelope(Additional stopper X-axis, Y-axis)  
X-axis mechanical stopper position:100°  
Y-axis mechanical stopper position:133°

### Wall mount / inverse type

● **Arm length 300mm** ● **Maximum payload 5kg** Note. Built-to-order product. Contact us for the delivery period.

### Ordering method

<b>YK300XGS</b>		<b>150</b>				<b>RCX340-4</b>							
<b>Model</b>	<b>Installation method</b> <small>Note1</small>	<b>Z axis stroke</b>	<b>Tool flange</b>	<b>Hollow shaft</b>	<b>Cable</b>	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (O.P.A)</b>	<b>Option B (O.P.B)</b>	<b>Option C (O.P.C)</b>	<b>Option D (O.P.D)</b>	<b>Option E (O.P.E)</b>	<b>Absolute battery</b>
	W: Wall mount (same as per external view)  U: Inverse wall mount (upside down)	150: 150mm	No entry: None  F: With tool flange	No entry: None  S: With hollow shaft	3L: 3.5m  5L: 5m 10L: 10m	<b>Specify various controller setting items. RCX340 ▶</b>							
						<b>P.636</b>							

**Note 1.** When installing the robot, always follow the specifications.  
Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling.  
Incorrect installation can cause trouble or malfunction.

## Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		150 mm	150 mm	150 mm	—
	Rotation angle		+/-120 °	+/-130 °	—	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>			+/-0.01 mm		+/-0.004 °	
Maximum speed			4.4 m/sec		1.0 m/sec	1020 °/sec (wall mount) 720 °/sec (inverse wall mount)
Maximum payload			5 kg (Standard specification), 4 kg (Option specifications <sup>Note 4</sup> )			
Standard cycle time: with 2kg payload <sup>Note 2</sup>			0.49 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>			0.05 kgm <sup>2</sup>			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			φ 4 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			19.5 kg			

Note 1. This is the value at a constant ambient temperature.  
 Note 2. When reciprocating 25mm horizontally and 300mm horizontally (with a 2kg payload in rough-positioning arch motion).  
 Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.  
 Note 4. Maximum payload of option specifications (with tool flange attached or with user wiring and tubing routed through spline shaft) is 4kg.

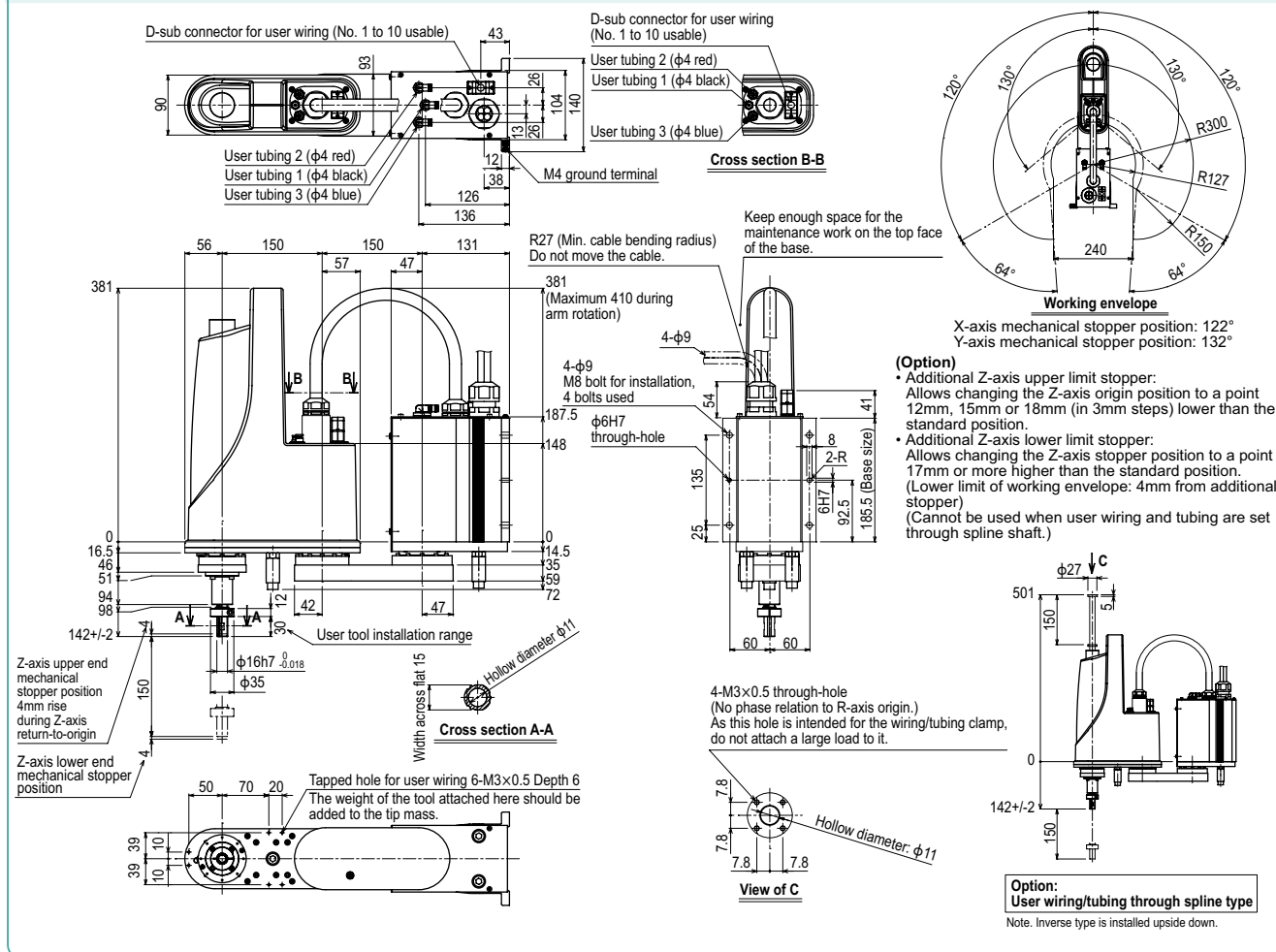
**Controller**

Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

**Note.** The movement range can be limited by changing the position of Y axis mechanical stopper. (The movement range is set to the maximum at the time of shipment.)  
See our robot manuals (installation manuals) for detailed information.

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## YK300XGS



Controller

**RCX340 ► 636**



### Wall mount / inverse type

● Arm length 400mm

● **Maximum payload 5kg**

Note. Built-to-order product. Contact us for the delivery period.

### Ordering method

<b>YK400XGS</b>		<b>150</b>				<b>RCX340-4</b>							
<b>Model</b>	<b>Installation method</b> <sup>Note1</sup>	<b>Z axis stroke</b>	<b>Tool flange</b>	<b>Hollow shaft</b>	<b>Cable</b>	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (O.P.A)</b>	<b>Option B (O.P.B)</b>	<b>Option C (O.P.C)</b>	<b>Option D (O.P.D)</b>	<b>Option E (O.P.E)</b>	<b>Absolute battery</b>
	W: Wall mount (same as per external view)  U: Inverse wall mount (upside down)	150: 150mm	No entry: None  F: With tool flange	No entry: None  S: With hollow shaft	3L: 3.5m  5L: 5m 10L: 10m	<b>Specify various controller setting items. RCX340 ▶</b>							
						<b>P.636</b>							

Note 1. When installing the robot, always follow the specifications.

Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling. Incorrect installation can cause trouble or malfunction.

## Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		250 mm	150 mm	150 mm	—
	Rotation angle		+/-125 °	+/-144 °	—	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>			+/-0.01 mm		+/-0.004 °	
Maximum speed			6.1 m/sec		1.1 m/sec	1020 °/sec (wall mount) 720 °/sec (inverse wall mount)
Maximum payload			5 kg (Standard specification), 4 kg (Option specifications <sup>Note 4</sup> )			
Standard cycle time: with 2kg payload <sup>Note 2</sup>			0.49 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>			0.05 kgm <sup>2</sup>			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			φ 4 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			20 kg			

Note 1. This is the value at a constant ambient temperature.

Note 2. When reciprocating 25mm horizontally and 300mm horizontally (with a 2kg payload in rough-positioning arch motion).

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Maximum payload of option specifications (with tool flange attached or with user wiring and tubing routed through spline shaft) is 4kg.

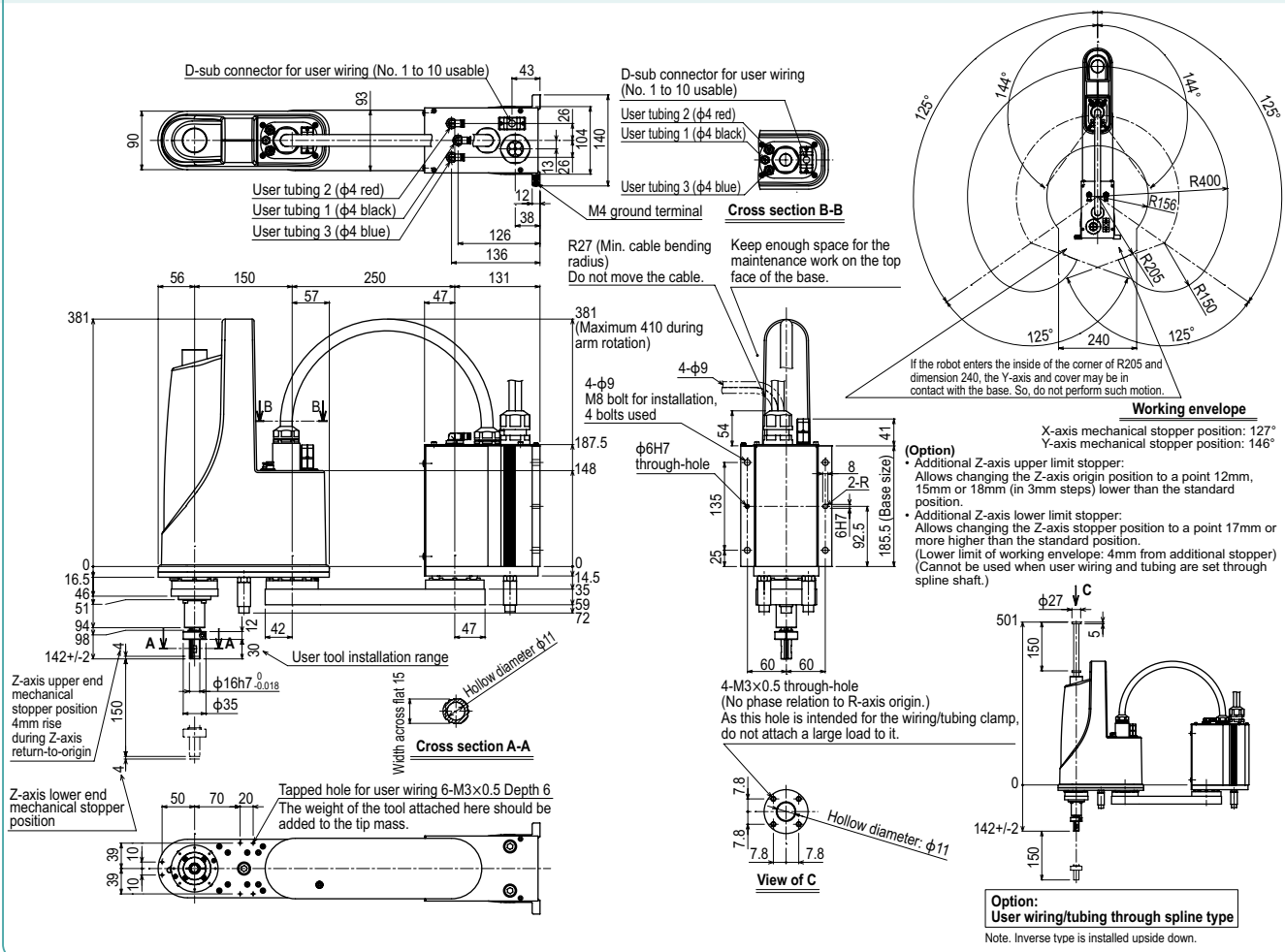
**Controller**

Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

**Note.** The movement range can be limited by changing the position of Y axis mechanical stopper. (The movement range is set to the maximum at the time of shipment.)  
See our robot manuals (installation manuals) for detailed information.

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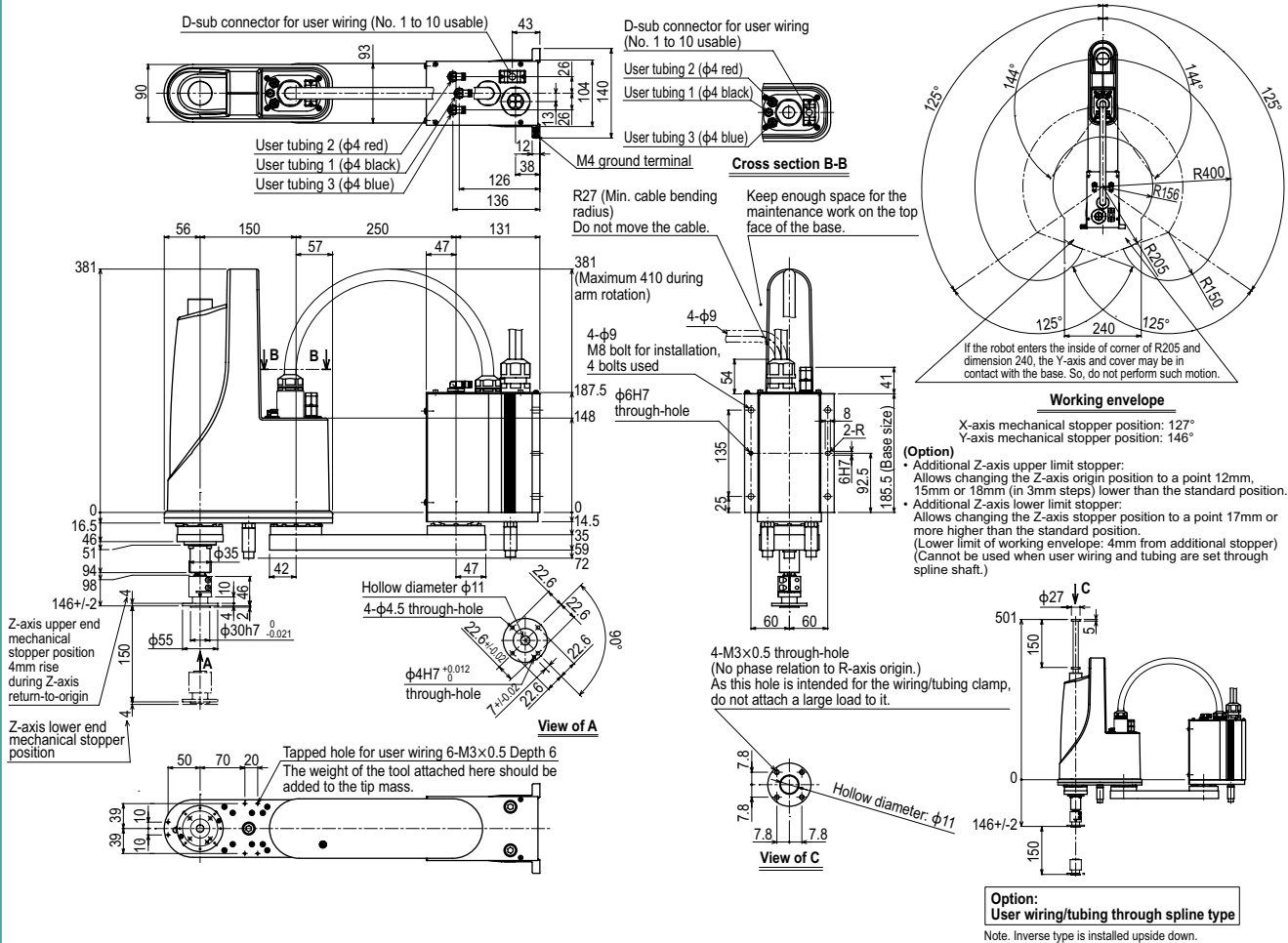
## YK400XGS



Controller

**RCX340 ► 636**

## YK400XGS Tool flange mount type





# YK500XGS

Wall mount / inverse type

- Arm length 500mm
- Maximum payload 10kg

## Ordering method

**YK500XGS**

Model

Installation method <sup>Note 1</sup>

W: Wall mount  
(same as per external view)  
U: Inverse wall mount  
(upside down)

Z axis stroke

200: 200mm  
300: 300mm

Tool flange

No entry: None  
F: With tool flange

Cable

3L: 3.5m  
5L: 5m  
10L: 10m

**RCX340-4**

Controller / Number of controllable axes

Safety standard

Option A (OP.A)

Option B (OP.B)

Option C (OP.C)

Option D (OP.D)

Option E (OP.E)

Absolute battery

Specify various controller setting items. RCX340 ▶ **P.636**

Note 1. When installing the robot, always follow the specifications.

Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling.  
Incorrect installation can cause trouble or malfunction.

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	200 mm	300 mm	200 mm/300 mm	—
	AC servo motor output	+/-105 °	+/-125 °	—	+/-360 °
		400 W	200 W	200 W	200 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>		+/-0.01 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		7.6 m/sec	2.3 m/sec	1.7 m/sec	1700 °/sec (wall mount) 800 °/sec (inverse wall mount)
Maximum payload		10 kg (Standard type), 9 kg (Tool flange mount type)			
Standard cycle time: with 2kg payload <sup>Note 2</sup>		0.45 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		0.30 kgm <sup>2</sup>			
User wiring		0.2 sq × 20 wires			
User tubing (Outer diameter)		φ 6 × 3			
Travel limit		1. Soft limit 2. Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		30 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

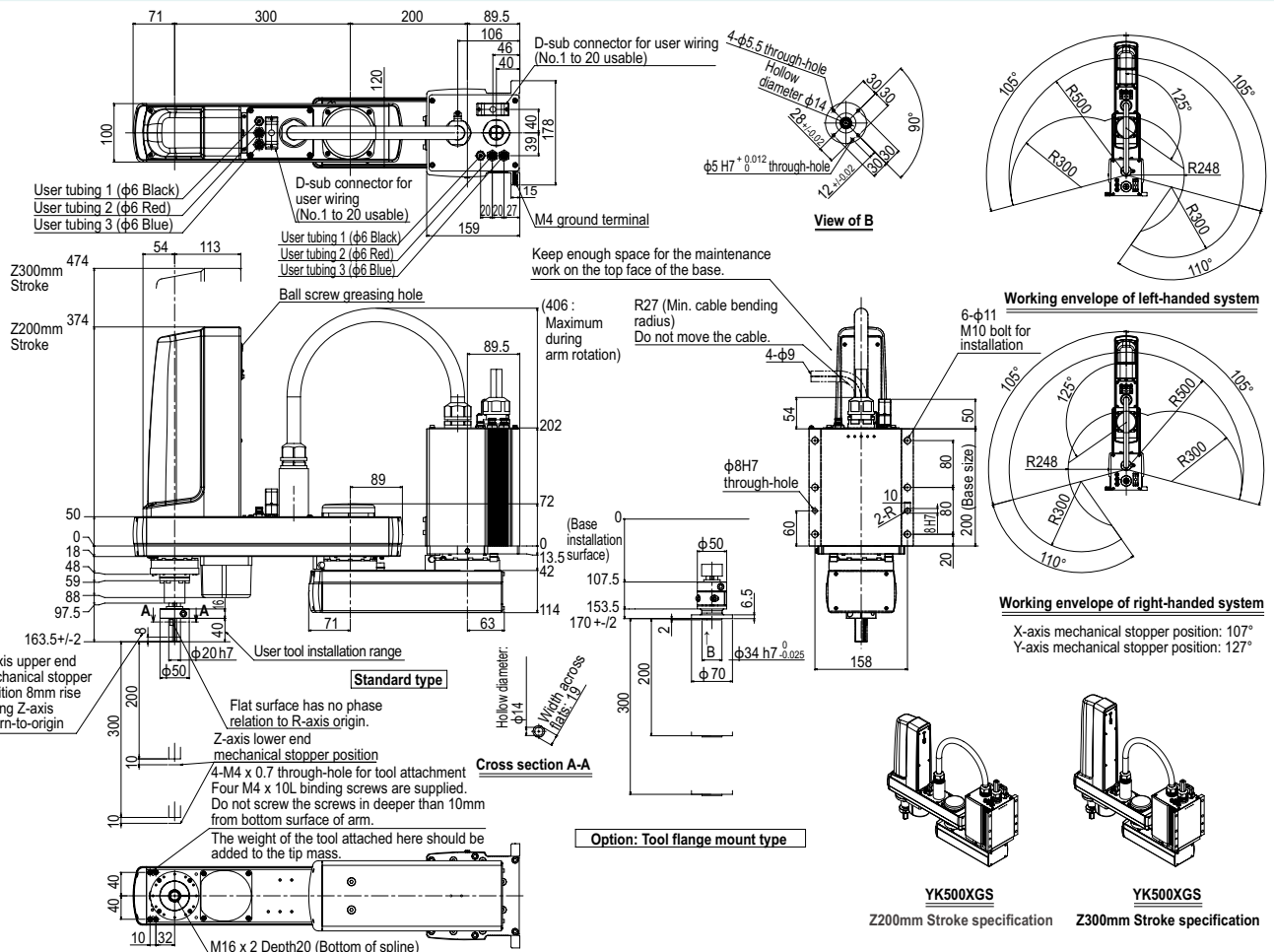
## Controller

Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
See our robot manuals (installation manuals) for detailed information.

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## YK500XGS



Controller

**RCX340 ▶ 636**

# YK600XGS

Wall mount / inverse type

- Arm length 600mm
- Maximum payload 10kg

## Ordering method

Model	Installation method <sup>Note 1</sup>	Z axis stroke	Tool flange	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
YK600XGS	W: Wall mount (same as per external view) U: Inverse wall mount (upside down)	200: 200mm 300: 300mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m	RCX340-4							
Specify various controller setting items. RCX340 ▶ <b>P.636</b>												

Note 1. When installing the robot, always follow the specifications.  
Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling.  
Incorrect installation can cause trouble or malfunction.

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	300 mm	300 mm	200 mm/300 mm	—
	AC servo motor output	+/-130 °	+/-145 °	—	+/-360 °
		400 W	200 W	200 W	200 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>		+/-0.01 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		8.4 m/sec	2.3 m/sec	1.7 m/sec	1700 °/sec (wall mount) 800 °/sec (inverse wall mount)
Maximum payload		10 kg (Standard type), 9 kg (Tool flange mount type)			
Standard cycle time: with 2kg payload <sup>Note 2</sup>		0.46 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		0.30 kgm <sup>2</sup>			
User wiring		0.2 sq x 20 wires			
User tubing (Outer diameter)		φ 6 x 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		31 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)  
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.  
Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.  
Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

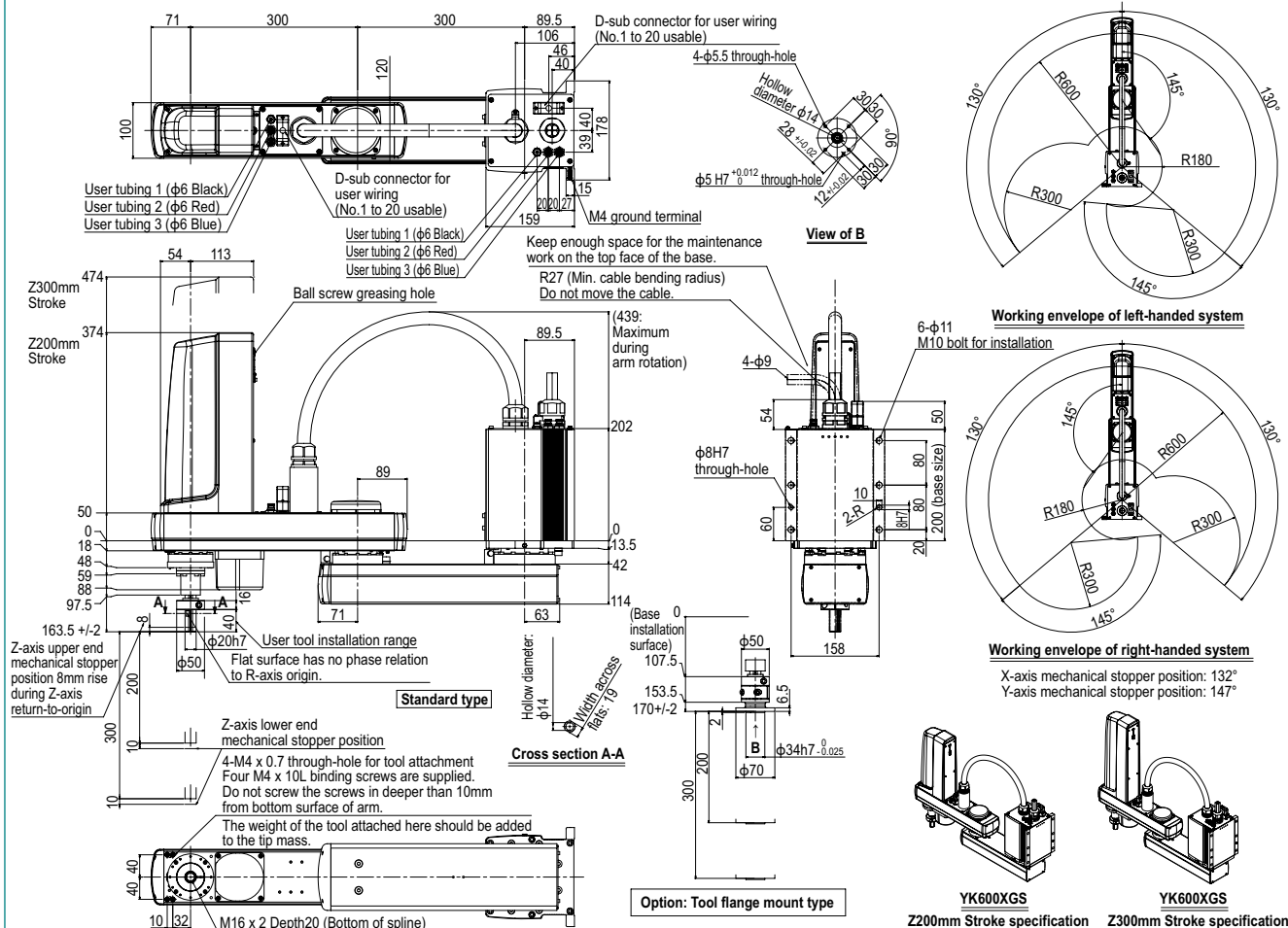
## Controller

Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
See our robot manuals (installation manuals) for detailed information.

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## YK600XGS



# YK700XGS

Wall mount / inverse type

- Arm length 700mm
- Maximum payload 20kg

## Ordering method

<b>YK700XGS</b>					<b>RCX340-4</b>							
Model	Installation method W: Wall mount (same as per external view) U: Inverse wall mount (upside down)	Z axis stroke 200: 200mm 400: 400mm	Tool flange No entry: None F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ **P.636**

Note 1. When installing the robot, always follow the specifications.  
Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling.  
Incorrect installation can cause trouble or malfunction.

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
Rotation angle		300 mm	400 mm	200 mm / 400 mm	—
AC servo motor output		+/-130 °	+/-130 °	—	+/-360 °
Deceleration mechanism	Transmission method	750 W	400 W	400 W	200 W
Motor to speed reducer	Speed reducer to output	Direct-coupled			
Repeatability		Direct-coupled			
Maximum speed		+/-0.02 mm	+/-0.01 mm	+/-0.004 °	
Maximum payload		8.4 m/sec	2.3 m/sec	1.7 m/sec	920 °/sec (wall mount) 480 °/sec (inverse wall mount)
Standard cycle time: with 2kg payload		20 kg (Standard type), 19 kg (Tool flange mount type)			
R-axis tolerable moment of inertia		0.42 sec			
User wiring		1.0 kgm <sup>2</sup>			
User tubing (Outer diameter)		0.2 sq × 20 wires			
Travel limit		φ 6 × 3			
Robot cable length		1. Soft limit 2. Mechanical stopper (X,Y,Z axis)			
Weight		Standard: 3.5 m Option: 5 m, 10 m			
		Z axis 200 mm: 50 kg Z axis 400 mm: 52 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)  
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.  
Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.  
Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

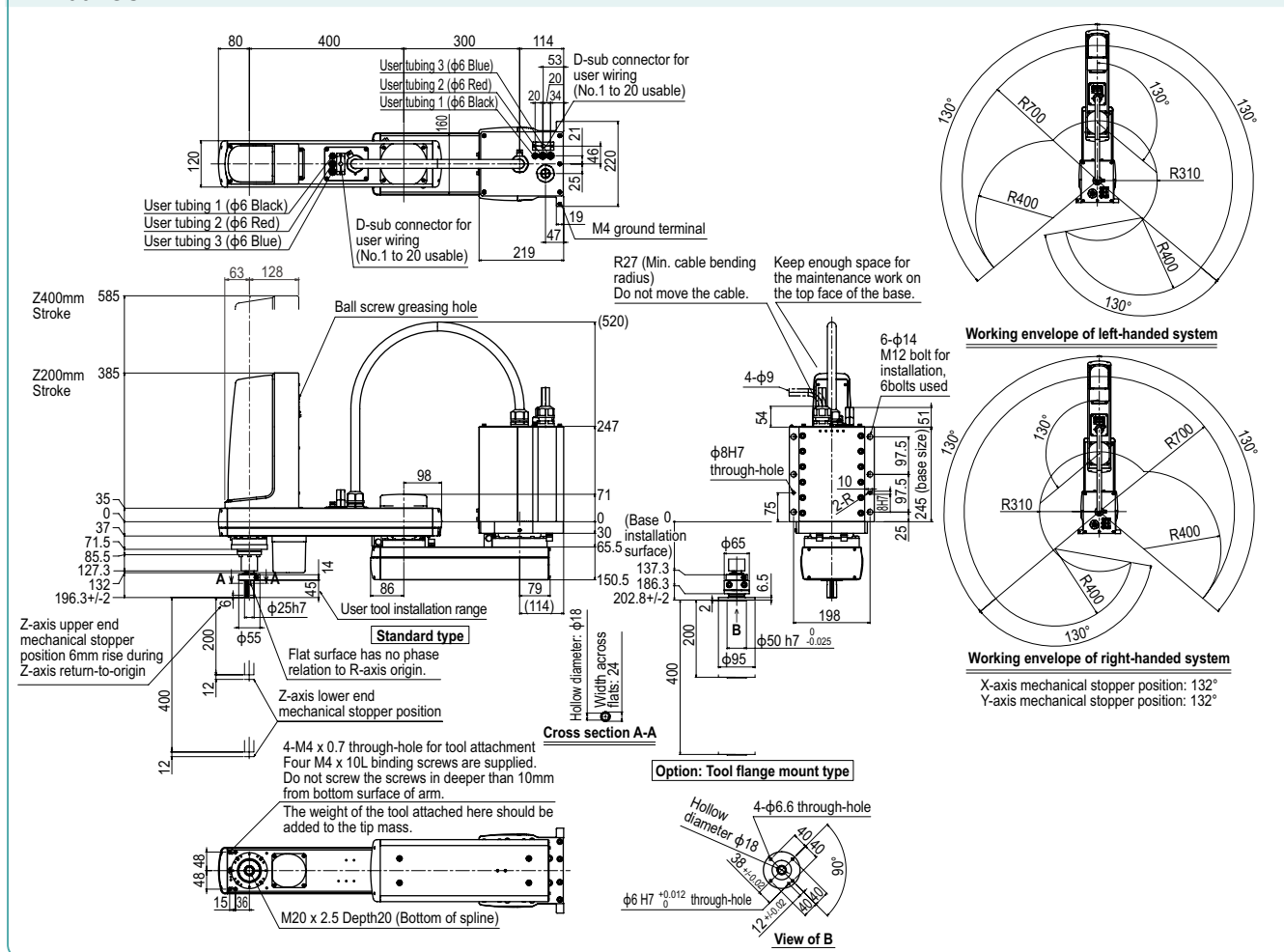
## Controller

Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
See our robot manuals (installation manuals) for detailed information.

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## YK700XGS



Controller

RCX340 ▶ **636**

# YK800XGS

**Wall mount / inverse type**

- Arm length 800mm
- Maximum payload 20kg

### Ordering method

<b>YK800XGS</b>					<b>RCX340-4</b>							
<b>Model</b>	<b>Installation method</b> <small>Note 1</small>	<b>Z axis stroke</b>	<b>Tool flange</b>	<b>Cable</b>	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>
	W: Wall mount (same as per external view) U: Inverse wall mount	200: 200mm 400: 400mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m								

**Specify various controller setting items. RCX340 ▶ P.636**

**Note 1.** When installing the robot, always follow the specifications.  
Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling.  
Incorrect installation can cause trouble or malfunction.

## Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		400 mm	400 mm	200 mm	400 mm
	Rotation angle		+/-130 °	+/-145 °	—	+/-360 °
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability			+/-0.02 mm		+/-0.01 mm	
Maximum speed			9.2 m/sec		2.3 m/sec	1.7 m/sec
Maximum payload			20 kg (Standard type), 19 kg (Tool flange mount type)			
Standard cycle time: with 2kg payload			0.48 sec			
R-axis tolerable moment of inertia			1.0 kgm <sup>2</sup>			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			φ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 52 kg Z axis 400 mm: 54 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)  
 Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.  
 Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.  
 Note. Please consult YAMAHHA when connecting other tubes and cables to the self-supporting machine harness.

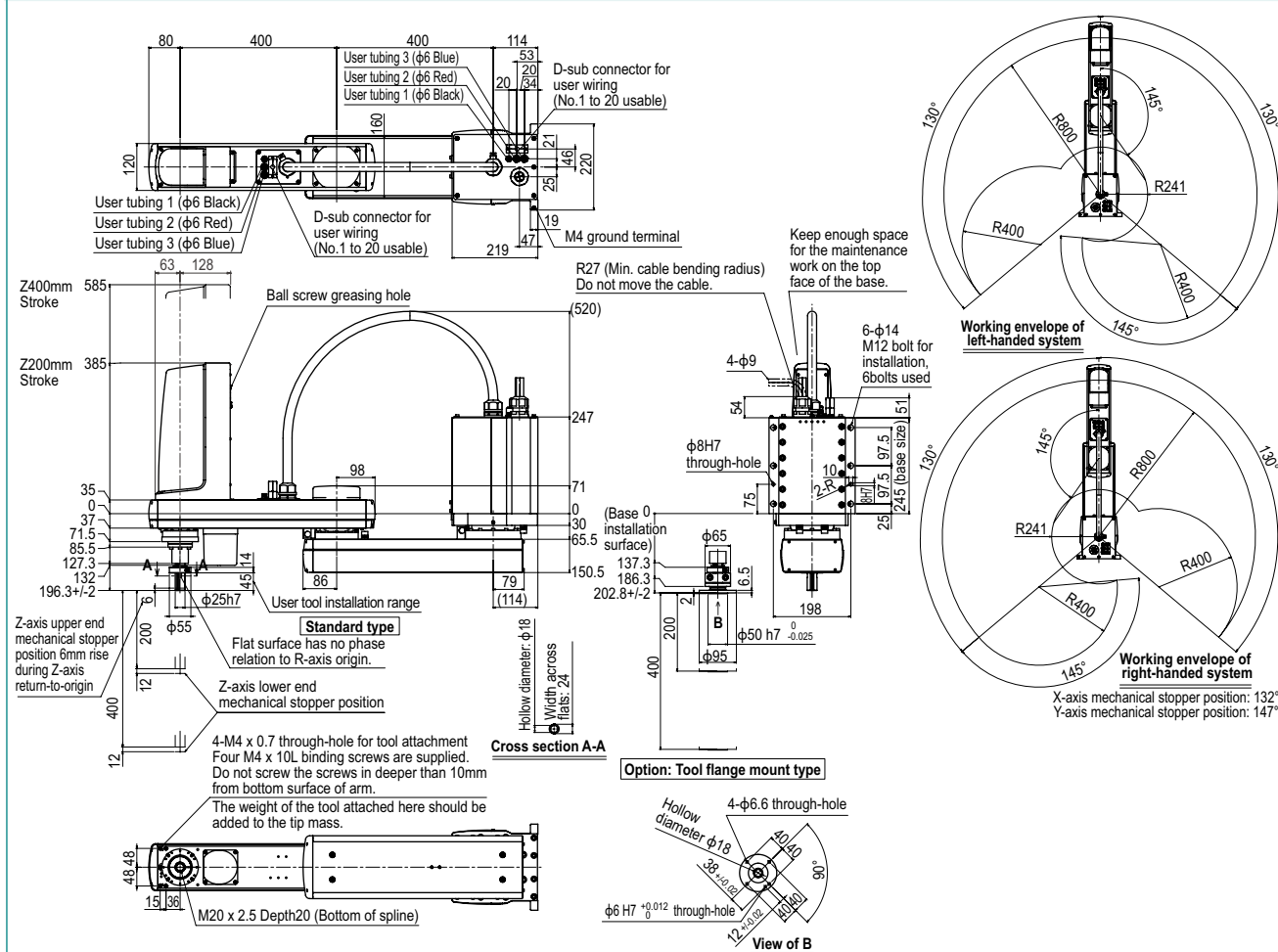
#### Controller

Controller	Power capacity (VA)	Operation method
RX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note: The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
See our robot manuals (installation manuals) for detailed information

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## YK800XGS





# YK900XGS

Wall mount / inverse type

● Arm length 900mm ● Maximum payload 20kg

## Ordering method

<b>YK900XGS</b>					<b>RCX340-4</b>										
<b>Model</b>	<b>Installation method</b> W: Wall mount (same as per external view) U: Inverse wall mount (upside down)	<b>Z axis stroke</b> 200: 200mm 400: 400mm	<b>Tool flange</b> No entry: None F: With tool flange	<b>Cable</b> 3L: 3.5m 5L: 5m 10L: 10m	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>			

Specify various controller setting items. RCX340 ▶ **P.636**

Note 1. When installing the robot, always follow the specifications.  
Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling.  
Incorrect installation can cause trouble or malfunction.

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	500 mm	400 mm	200 mm/400 mm	—
		+/-130 °	+/-150 °	—	+/-360 °
<b>AC servo motor output</b>		750 W	400 W	400 W	200 W
<b>Deceleration mechanism</b>	<b>Transmission method</b>	Direct-coupled			
	<b>Motor to speed reducer</b>	Direct-coupled			
	<b>Speed reducer to output</b>	Direct-coupled			
<b>Repeatability</b>	Note 1	+/-0.02 mm	+/-0.01 mm	+/-0.004 °	
<b>Maximum speed</b>		9.9 m/sec	2.3 m/sec	1.7 m/sec	920 °/sec (wall mount) 480 °/sec (inverse wall mount)
<b>Maximum payload</b>		20 kg (Standard type), 19 kg (Tool flange mount type)			
<b>Standard cycle time: with 2kg payload</b>	Note 2	0.49 sec			
<b>R-axis tolerable moment of inertia</b>	Note 3	1.0 kgm <sup>2</sup>			
<b>User wiring</b>		0.2 sq × 20 wires			
<b>User tubing (Outer diameter)</b>		φ 6 × 3			
<b>Travel limit</b>		1. Soft limit 2. Mechanical stopper (X,Y,Z axis)			
<b>Robot cable length</b>		Standard: 3.5 m Option: 5 m, 10 m			
<b>Weight</b>		Z axis 200 mm: 54 kg Z axis 400 mm: 56 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)  
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.  
Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.  
Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

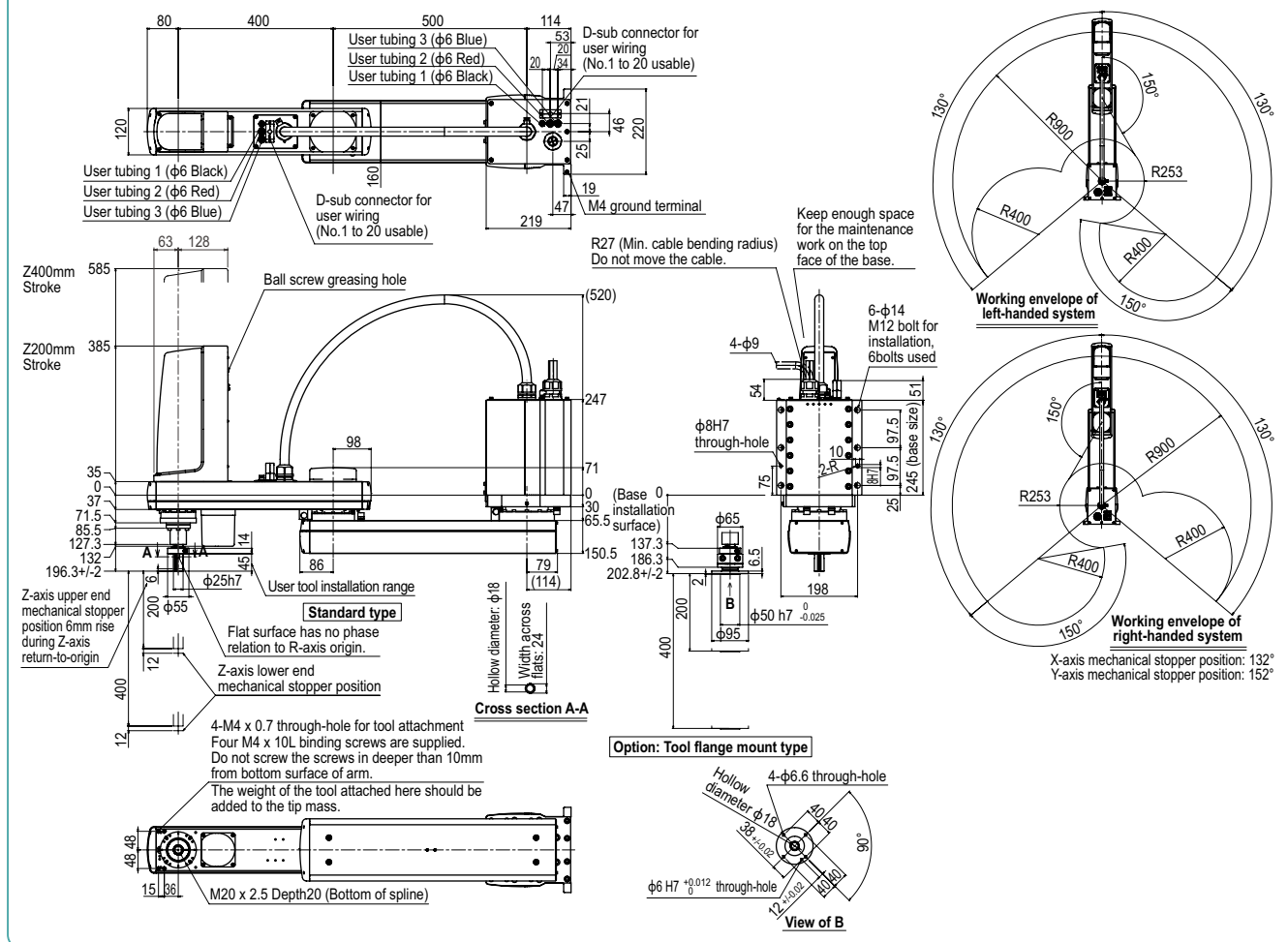
## Controller

Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
See our robot manuals (installation manuals) for detailed information.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot/>

## YK900XGS





# YK1000XGS

**Wall mount / inverse type**

- Arm length 1000mm
- Maximum payload 20kg

### Ordering method

<b>YK1000XGS</b>					<b>RCX340-4</b>							
<b>Model</b>	<b>Installation method</b> <small>Note 1</small>	<b>Z axis stroke</b>	<b>Tool flange</b>	<b>Cable</b>	<b>Controller /</b> Number of controllable axes	<b>Safety standard</b>	<b>Option A</b> (OP.A)	<b>Option B</b> (OP.B)	<b>Option C</b> (OP.C)	<b>Option D</b> (OP.D)	<b>Option E</b> (OP.E)	<b>Absolute battery</b>
	W: Wall mount (same as per external view)	200: 200mm 400: 400mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m								

Specify various controller setting items. RCX340 ▶ **P.636**

**Note 1.** When installing the robot, always follow the specifications.  
Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling.  
Incorrect installation can cause trouble or malfunction.

## Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		600 mm	400 mm	200 mm/400 mm	—
	Rotation angle		+/-130 °	+/-150 °	—	+/-360 °
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability			+/-0.02 mm	+/-0.01 mm		+/-0.004 °
Maximum speed			10.6 m/sec	2.3 m/sec	1.7 m/sec	920 °/sec (wall mount) 480 °/sec (inverse wall mount)
Maximum payload			20 kg (Standard type), 19 kg (Tool flange mount type)			
Standard cycle time: with 2kg payload <sup>Note 2</sup>			0.49 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>			1.0 kgm <sup>2</sup>			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			φ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 56 ka Z axis 400 mm: 58 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)  
 Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.  
 Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.  
 Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

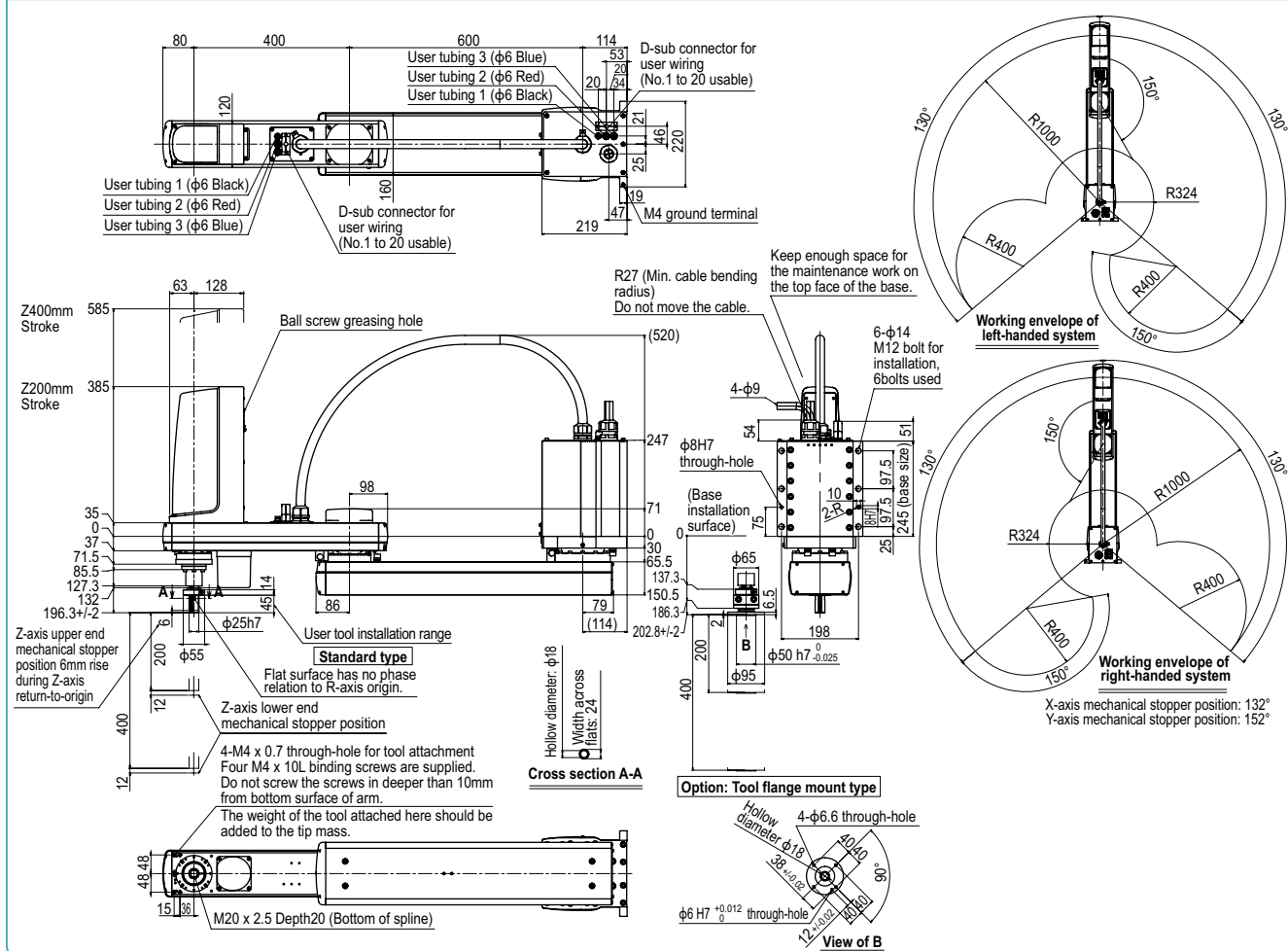
#### Controller

Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
**<https://global.yamaha-motor.com/business/robot/>**

## YK1000XGS



### Dust-proof & drip-proof type

- Arm length 250mm
- Maximum payload 4kg



### Ordering method

# YK250XGP- 150

# S

## RCX340-4

<b>Model</b>	<b>Z axis stroke</b> 150: 150mm	<b>Tool flange</b> No entry: None F: With tool flange	<b>Hollow shaft</b> S: With hollow shaft	<b>Cable</b> 3L: 3.5m 5L: 5m 10L: 10m	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>
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Specify various controller setting items. RCX340 ▶ **P.636**

Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		100 mm	150 mm	150 mm	–
	Rotation angle		+/-129 °	+/-134 °	–	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			4.5 m/sec		1.1 m/sec	1020 °/sec
Maximum payload			4 kg			
Standard cycle time: with 2kg payload <sup>Note 2</sup>			0.50 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>			0.05 kgm <sup>2</sup>			
Protection class <sup>Note 4</sup>			Equivalent to IP65 (IEC 60529)			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			φ 4 × 4			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			21.5 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

**Controller**

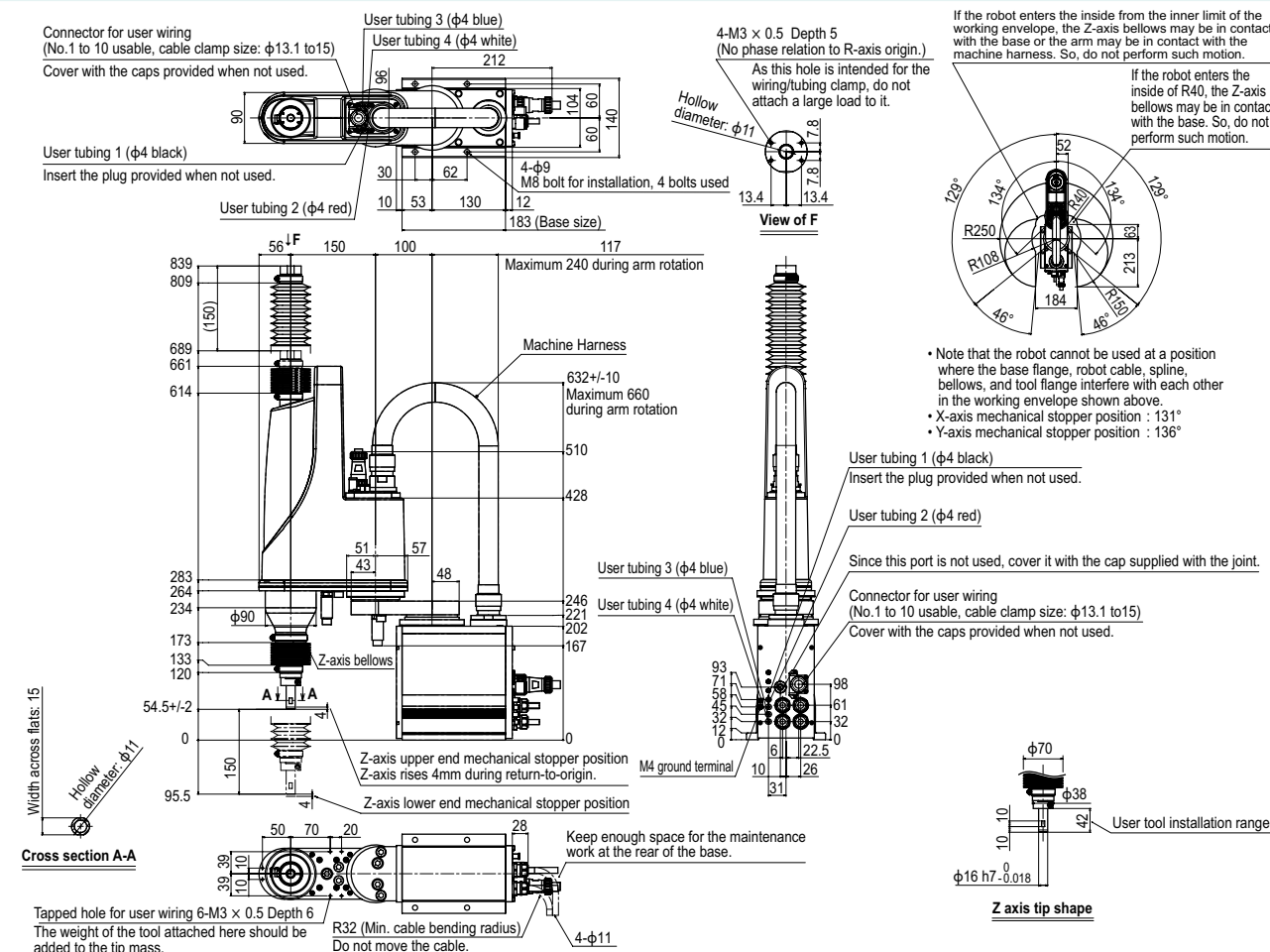
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

**Note.** The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

**Note.** To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot>

## YK250XGP



Controller

**RCX340 ► 636**

Linear conveyor  
modules  
**LCMR200**

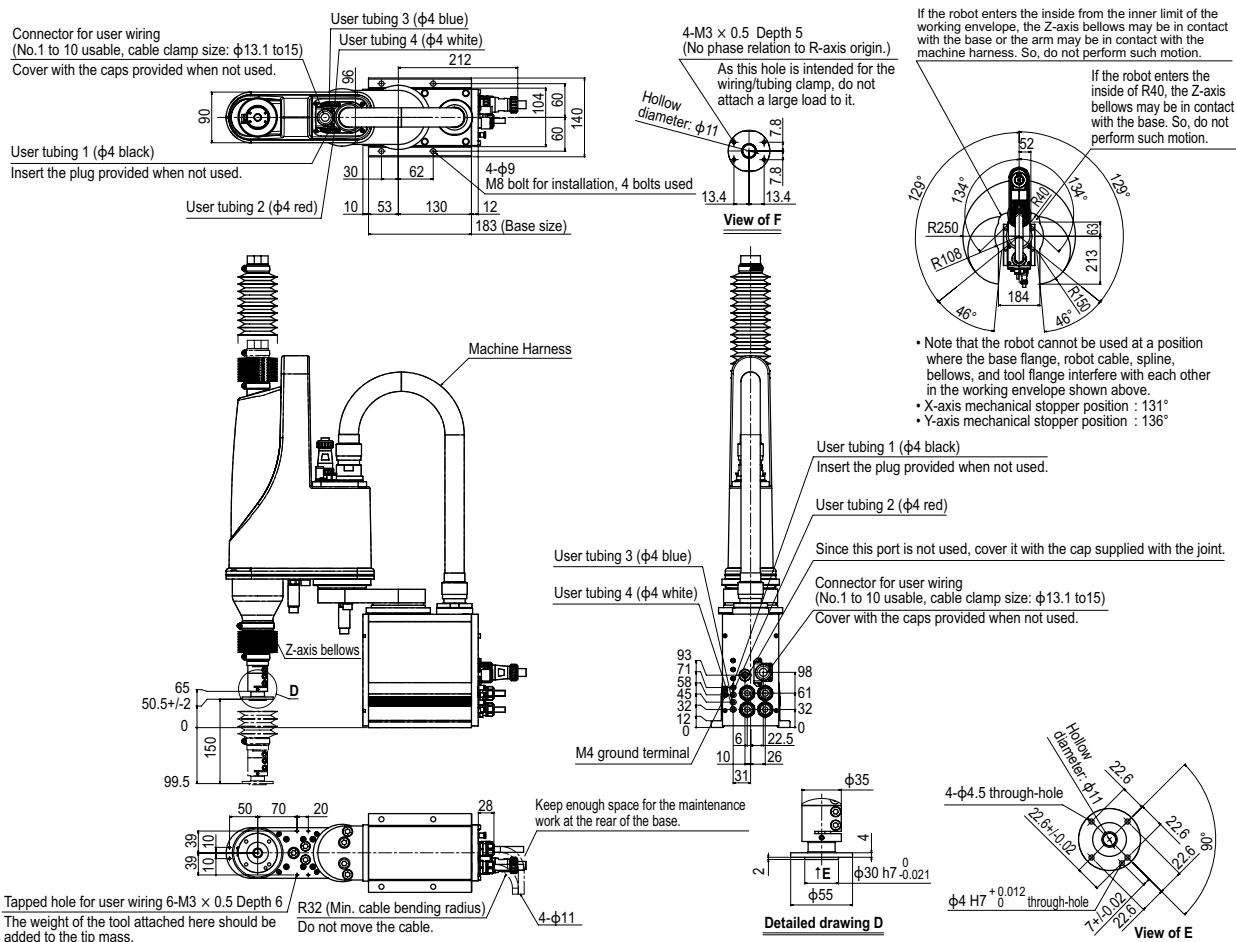
SCARA robots  
**YK-X**

Extra sma  
typeSmall /  
Medium typeW  
large type

& drive type

roof

## YK250XGP Tool flange mount type



# YK350XGP

Dust-proof & drip-proof type

- Arm length 350mm
- Maximum payload 4kg

## Ordering method

YK350XGP - 150

S

RCX340-4

Model	Z axis stroke	Tool flange	Hollow shaft	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
	150: 150mm	No entry: None F: With tool flange	S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	200 mm	150 mm	150 mm	—
		+/-129 °	+/-134 °	—	+/-360 °
AC servo motor output		200 W	150 W	50 W	100 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability	Note 1	+/-0.01 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		5.6 m/sec	1.1 m/sec	1020 °/sec	
Maximum payload		4 kg			
Standard cycle time: with 2kg payload	Note 2	0.52 sec			
R-axis tolerable moment of inertia	Note 3	0.05 kgm <sup>2</sup>			
Protection class	Note 4	Equivalent to IP65 (IEC 60529)			
User wiring		0.2 sq x 10 wires			
User tubing (Outer diameter)		φ 4 x 4			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		22 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

## Controller

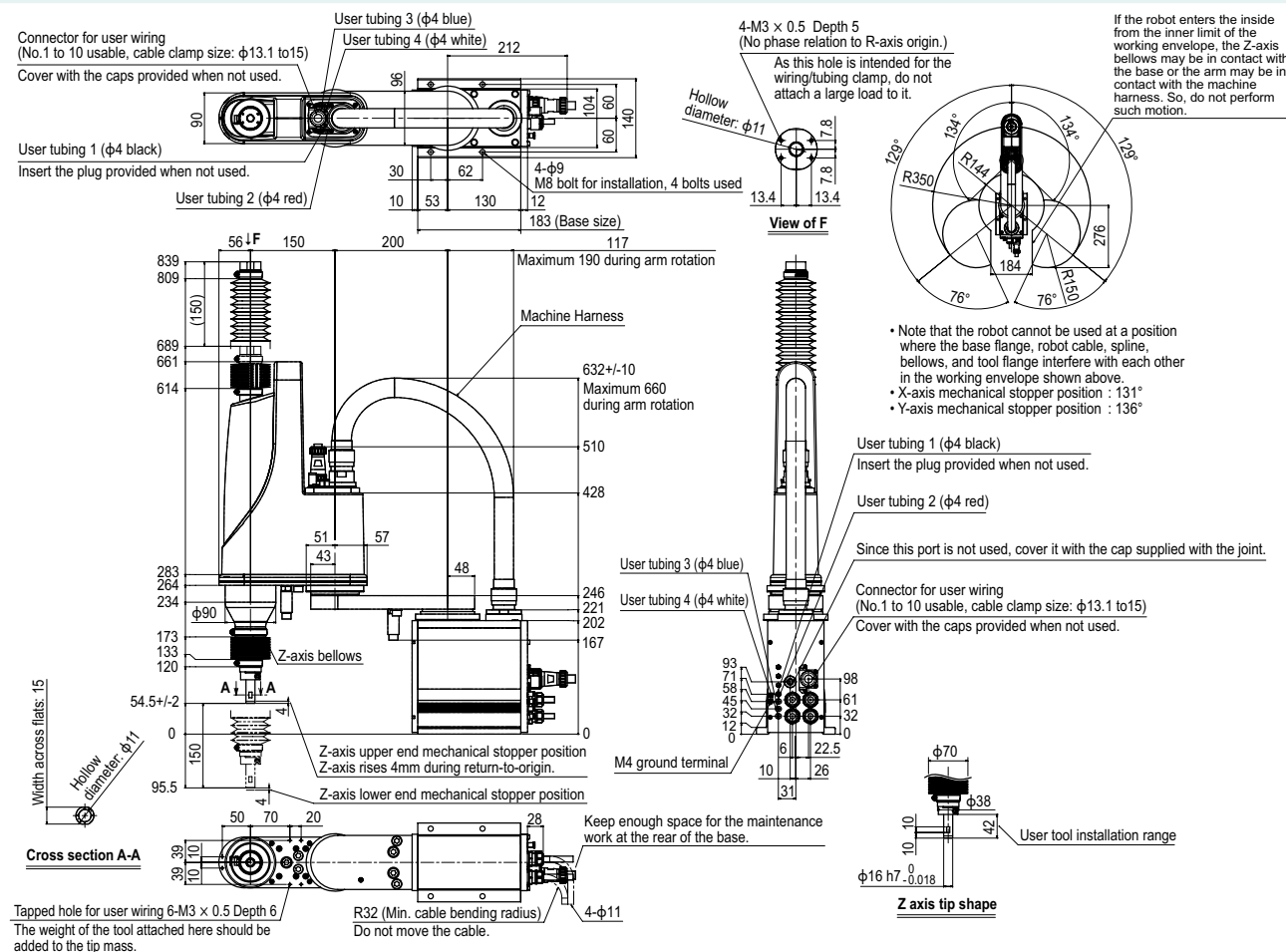
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

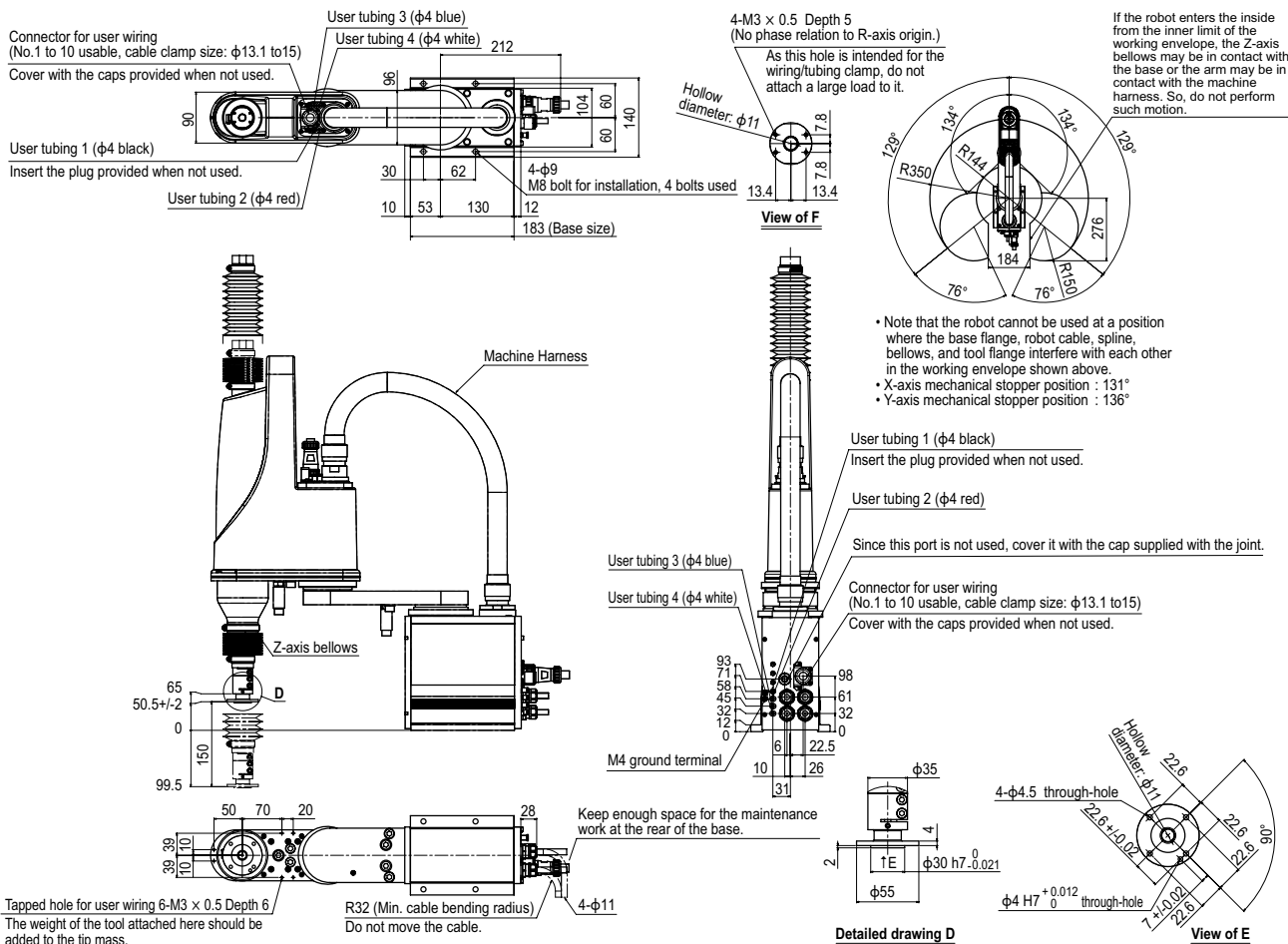
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot/>

## YK350XGP



## YK350XGP Tool flange mount type





# YK400XGP

Dust-proof & drip-proof type

- Arm length 400mm
- Maximum payload 4kg

## Ordering method

<b>YK400XGP-150</b>		<b>S</b>		<b>RCX340-4</b>								
Model	Z axis stroke 150: 150mm	Tool flange No entry: None F: With tool flange	Hollow shaft S: With hollow shaft	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	250 mm	150 mm	150 mm	—
		+/-129 °	+/-144 °	—	+/-360 °
AC servo motor output		200 W	150 W	50 W	100 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability	Note 1	+/-0.01 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		6.1 m/sec	1.1 m/sec	1020 °/sec	
Maximum payload		4 kg			
Standard cycle time: with 2kg payload	Note 2	0.50 sec			
R-axis tolerable moment of inertia	Note 3	0.05 kgm <sup>2</sup>			
Protection class	Note 4	Equivalent to IP65 (IEC 60529)			
User wiring		0.2 sq × 10 wires			
User tubing (Outer diameter)		φ 4 × 4			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		22.5 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

## Controller

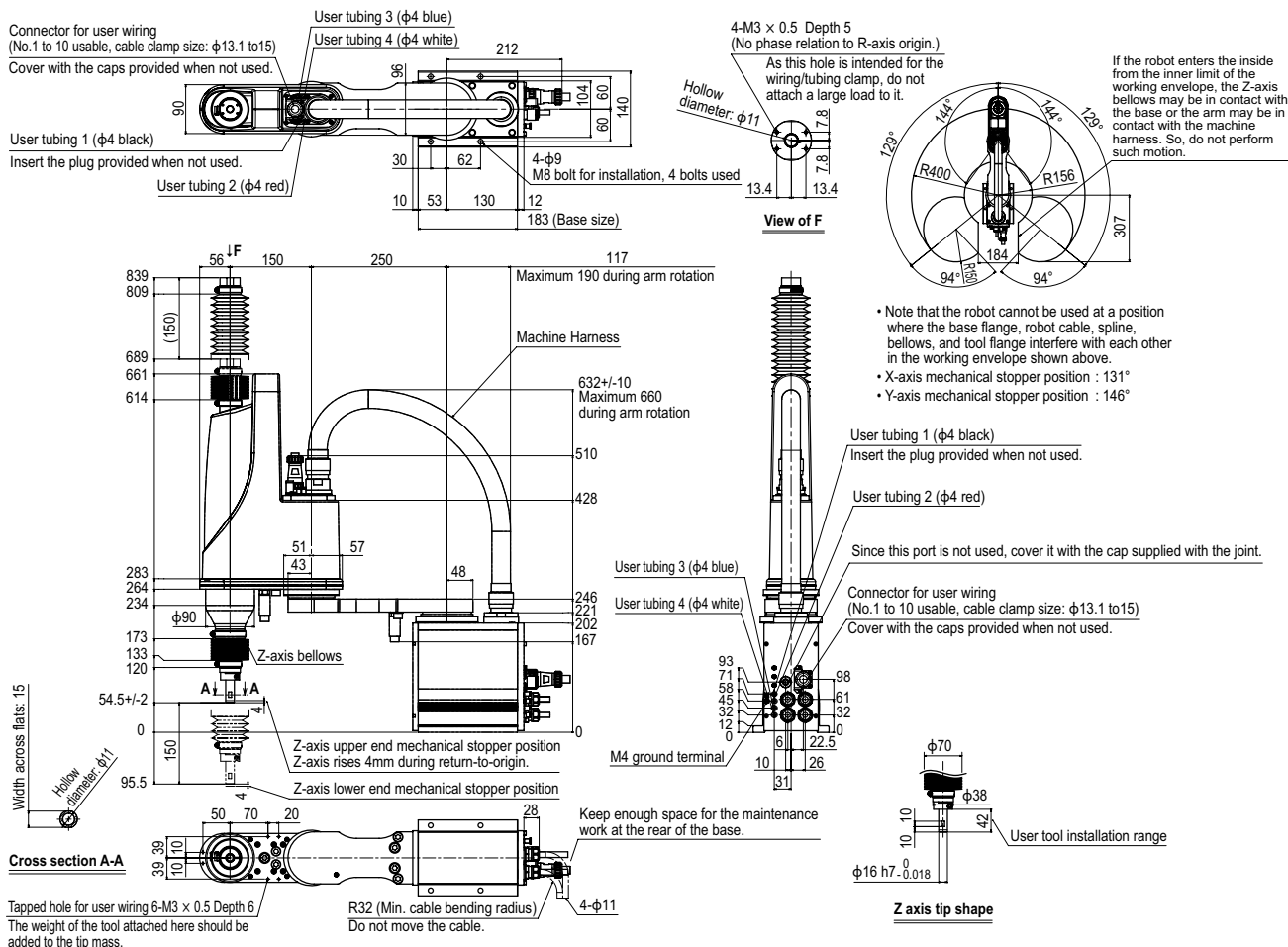
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
See our robot manuals (installation manuals) for detailed information.

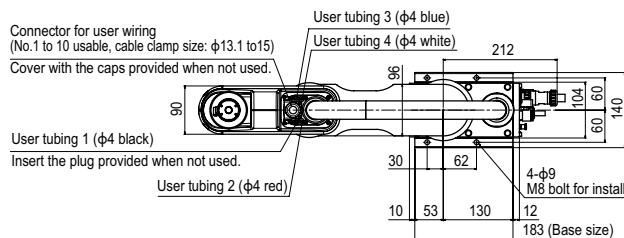
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot/>

## YK400XGP



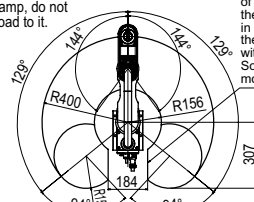
## YK400XGP Tool flange mount type



4-M3  $\times$  0.5 Depth 5  
(No phase relation to R-axis origin.)  
As this hole is intended for the wiring/tubing clamp, do not attach a large load to it.

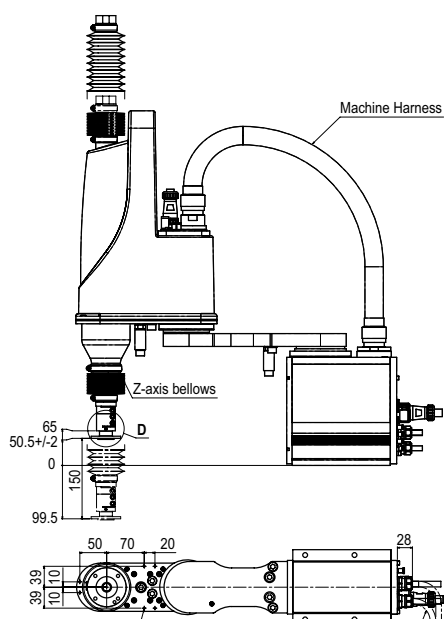
Hollow diameter:  $\phi 11$

View of F



If the robot enters the inside from the inner limit of the working envelope, the Z-axis bellows may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

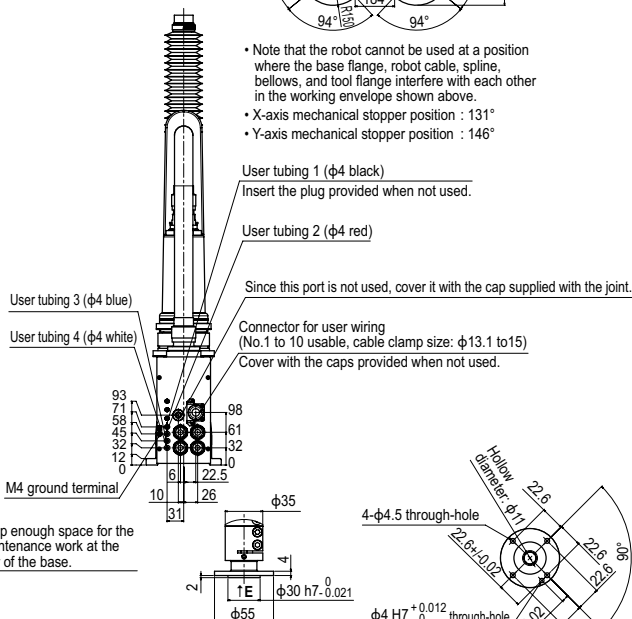
- Note that the robot cannot be used at a position where the base flange, robot cable, spline, bellows, and tool flange interfere with each other in the working envelope shown above.
- X-axis mechanical stopper position : 131°
- Y-axis mechanical stopper position : 146°



Tapped hole for user wiring 6-M3  $\times$  0.5 Depth 6  
The weight of the tool attached here should be added to the tip mass.

R32 (Min. cable bending radius)  
Do not move the cable.

Keep enough space for the maintenance work at the rear of the base.



Detailed drawing D

View of E

### Dust-proof & drip-proof type

- Arm length 500mm
- Maximum payload 4kg

### Ordering method

<b>YK500XGLP - 150</b>			<b>S</b>		<b>RCX340-4</b>							
<b>Model</b>	<b>Z axis stroke</b> 150: 150mm	<b>Tool flange</b> No entry: None F: With tool flange	<b>Hollow shaft</b> S: With hollow shaft	<b>Cable</b> 3L: 3.5m 5L: 5m 7L: 7m	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>
					Specify various controller setting items. RCX340 ▶ <b>P.636</b>							

## ■ Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		250 mm	250 mm	150 mm	–
	Rotation angle		+/-129 °	+/-144 °	–	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			5.1 m/sec		1.1 m/sec	1020 °/sec
Maximum payload			4 kg			
Standard cycle time: with 2kg payload <sup>Note 2</sup>			0.66 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>			0.05 kgm <sup>2</sup>			
Protection class <sup>Note 4</sup>			Equivalent to IP65 (IEC 60529)			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			φ 4 × 4			
Travel limit			1.Soft limit   2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m   Option: 5 m, 10 m			
Weight			25 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

#### Controller

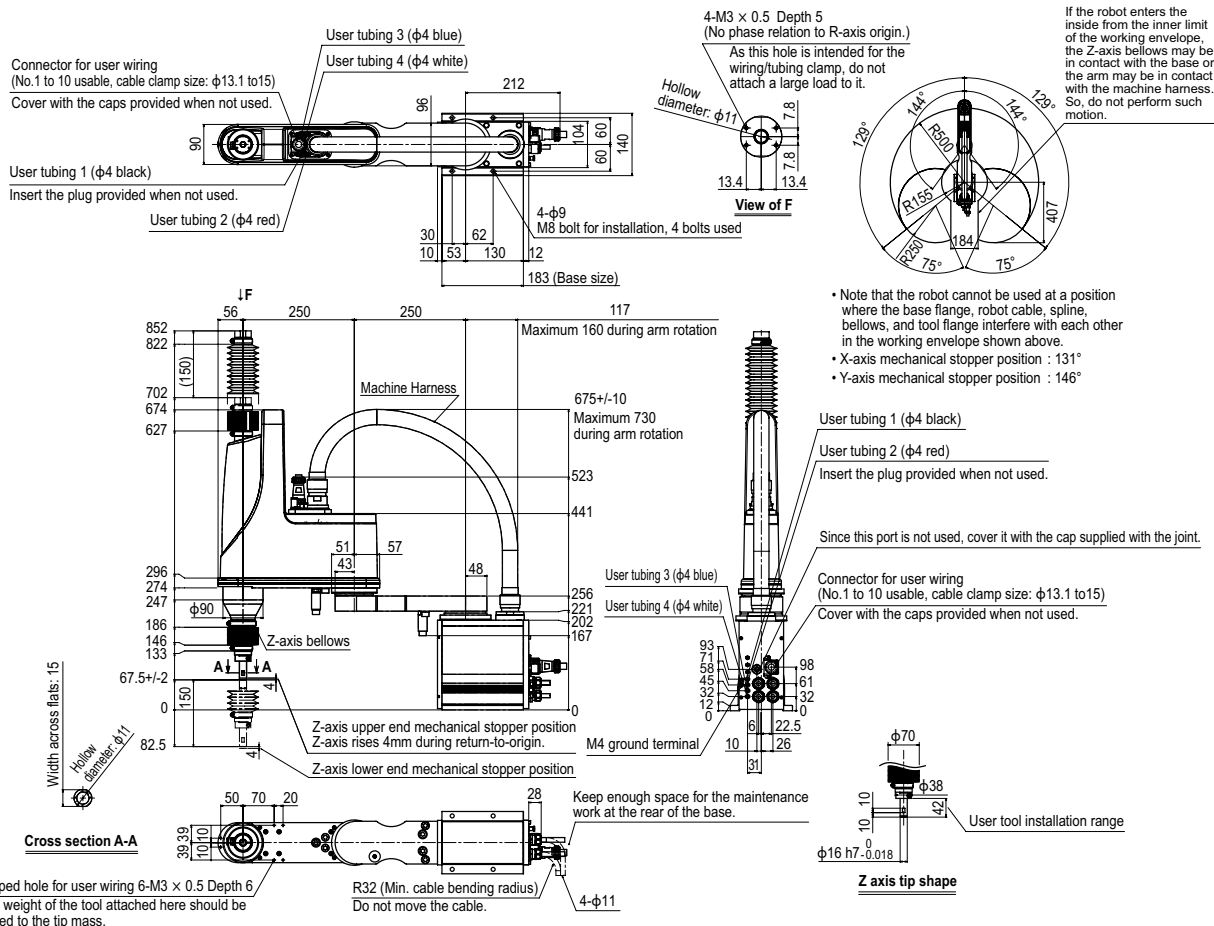
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

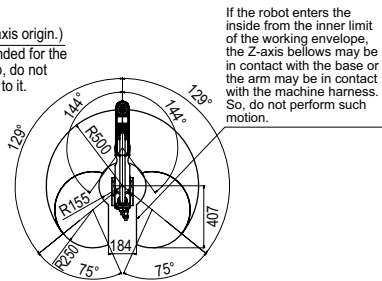
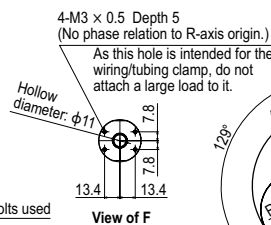
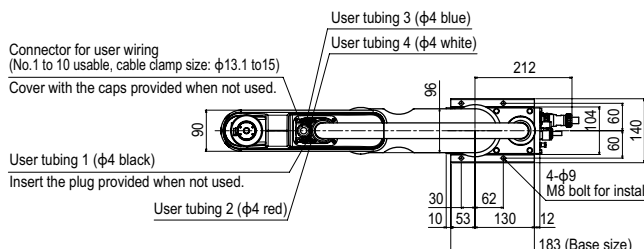
**Note.** To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
**<https://global.yamaha-motor.com/business/robot/>**

## YK500XGLP

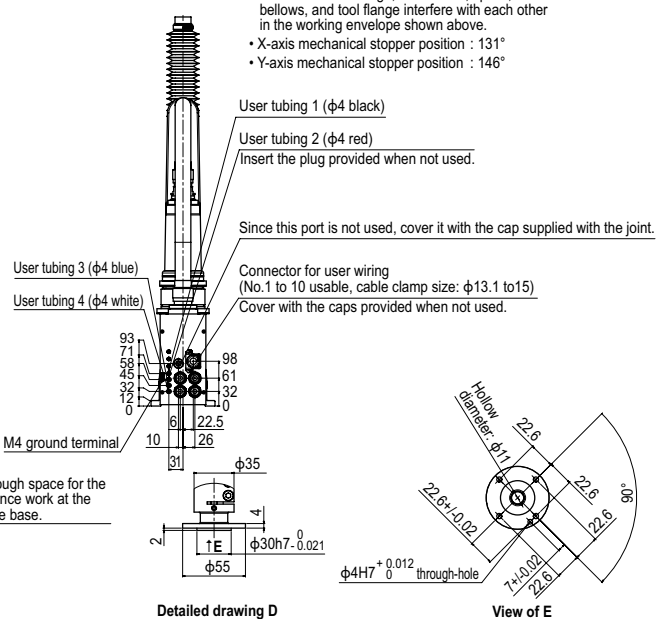
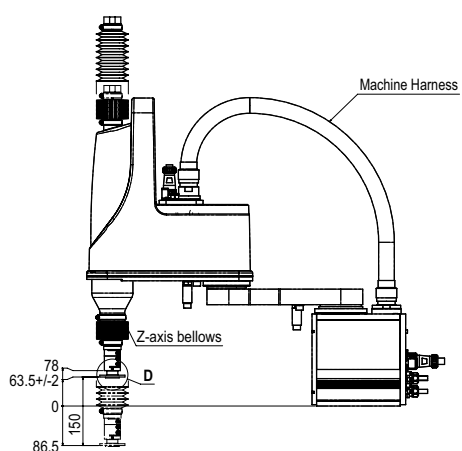


## YK500XGLP Tool flange mount type



If the robot enters the inside from the inner limit of the working envelope, the Z-axis bellows may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

- Note that the robot cannot be used at a position where the base flange, robot cable, spline, bellows, and tool flange interfere with each other in the working envelope shown above.
- X-axis mechanical stopper position : 131°
- Y-axis mechanical stopper position : 146°



Tapped hole for user wiring 6-M3 x 0.5 Depth 6  
The weight of the tool attached here should be added to the tip mass.

R32 (Min. cable bending radius)  
Do not move the cable.

4- $\phi 11$

Keep enough space for the maintenance work at the rear of the base.

# YK500XGP

Dust-proof & drip-proof type

- Arm length 500mm
- Maximum payload 10kg

## Ordering method

<b>YK500XGP</b>		<b>F</b>		<b>RCX340-4</b>							
Model	Z axis stroke	Tool flange	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
	200: 200mm 300: 300mm	F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	200 mm	200 mm	300 mm	200 mm	300 mm
	Rotation angle	+/-130 °	+/-145 °	—	+/-360 °
AC servo motor output		400 W	200 W	200 W	200 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability	Note 1	+/-0.01 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		7.6 m/sec	2.3 m/sec	1.7 m/sec	1700 °/sec
Maximum payload		10 kg			
Standard cycle time: with 2kg payload	Note 2	0.55 sec			
R-axis tolerable moment of inertia	Note 3	0.3 kgm <sup>2</sup>			
Protection class	Note 4	Equivalent to IP65 (IEC 60529)			
User wiring		0.2 sq x 20 wires			
User tubing (Outer diameter)		φ 6 x 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		Z axis 200 mm: 32 kg Z axis 300 mm: 33 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

## Controller

Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

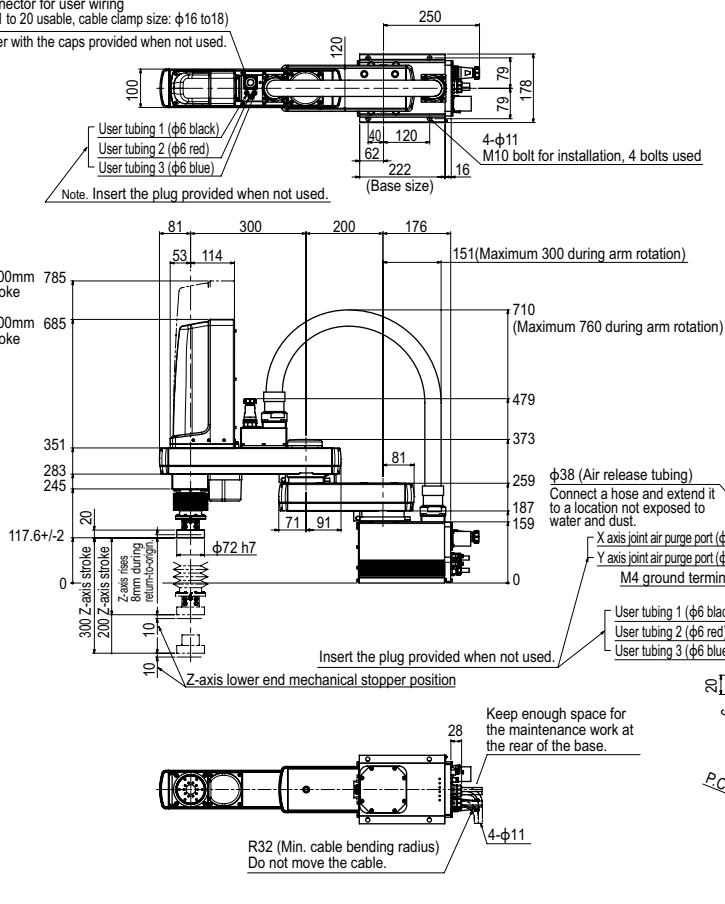
Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot/>

## YK500XGP

Connector for user wiring

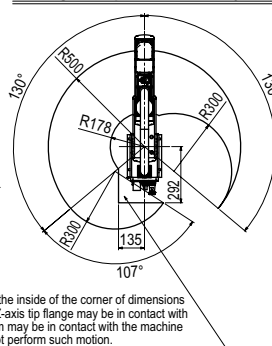
(No.1 to 20 usable, cable clamp size: φ16 to18)

Cover with the caps provided when not used.



If the robot enters the inside of the corner of dimensions 135 and 292, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

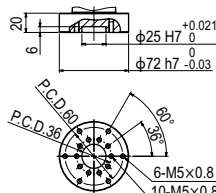
### Working envelope of left-handed system



### Working envelope of right-handed system

- Note that the robot cannot be used at a position where the base flange, robot cable, spline, and bellows interfere with each other in the working envelope shown above.
- X-axis mechanical stopper position : 132°
- Y-axis mechanical stopper position : 147°

### Z axis tip shape





# YK600XGLP

### Dust-proof & drip-proof type

- Arm length 600mm
- Maximum payload 4kg

### Ordering method

<b>YK600XGLP-150</b>			<b>S</b>		<b>RCX340-4</b>							
<b>Model</b>	<b>Z axis stroke</b> 150: 150mm	<b>Tool flange</b> No entry: None F: With tool flange	<b>Hollow shaft</b> S: With hollow shaft	<b>Cable</b> 3L: 3.5m 5L: 5m 10L: 10m	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>
					Specify various controller setting items. RCX340 ▶ <b>P.636</b>							

## ■ Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		350 mm	250 mm	150 mm	–
	Rotation angle		+/-129 °	+/-144 °	–	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			4.9 m/sec		1.1 m/sec	1020 °/sec
Maximum payload			4 kg			
Standard cycle time: with 2kg payload <sup>Note 2</sup>			0.71 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>			0.05 kgm <sup>2</sup>			
Protection class <sup>Note 4</sup>			Equivalent to IP65 (IEC 60529)			
User wiring (sq × wires)			0.2 × 10			
User tubing (Outer diameter)			φ 4 × 4			
Travel limit			1.Soft limit    2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m    Option: 5 m, 10 m			
Weight			26 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion)

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

#### Controller

Controller	Power capacity (VA)	Operation method
RX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

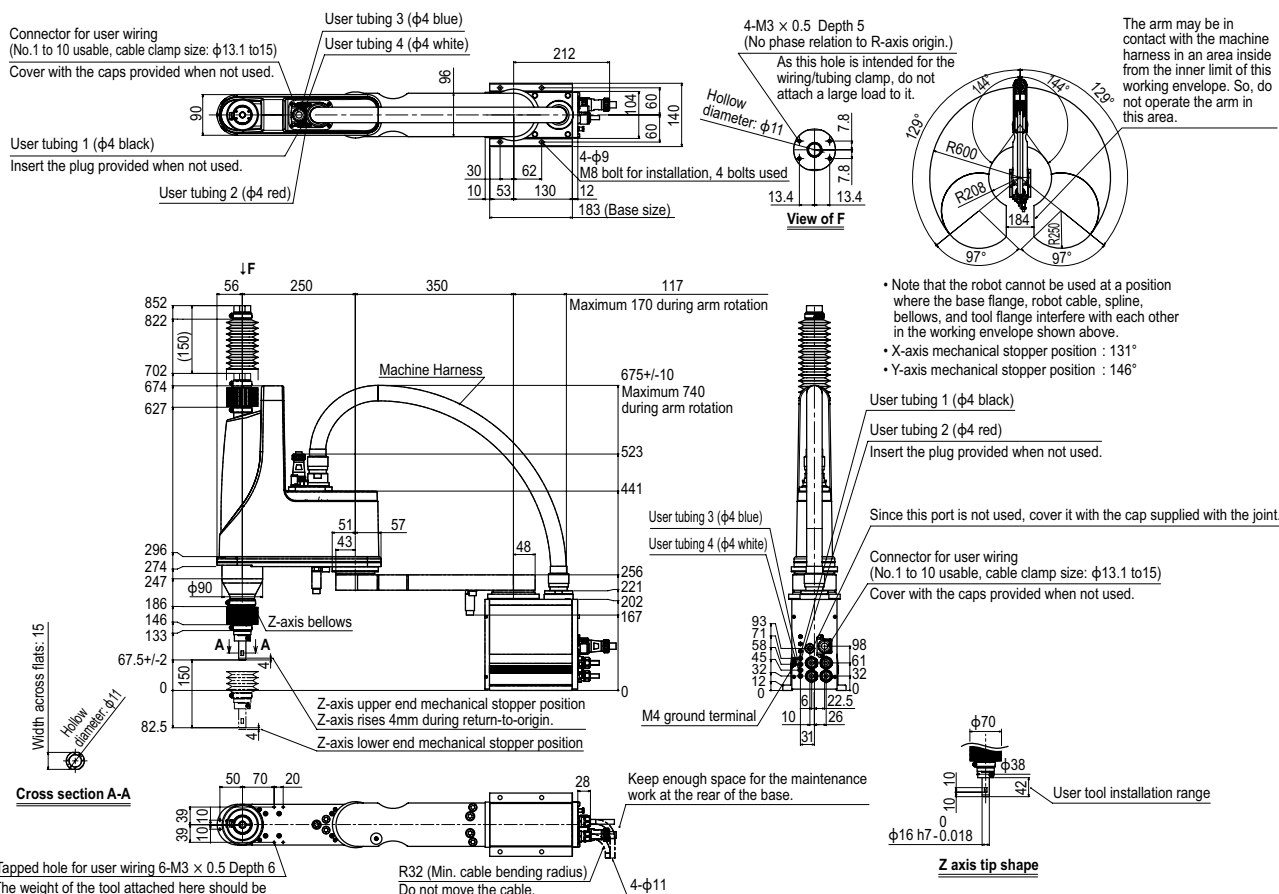
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)

See our robot manuals (installation manuals) for detailed information.

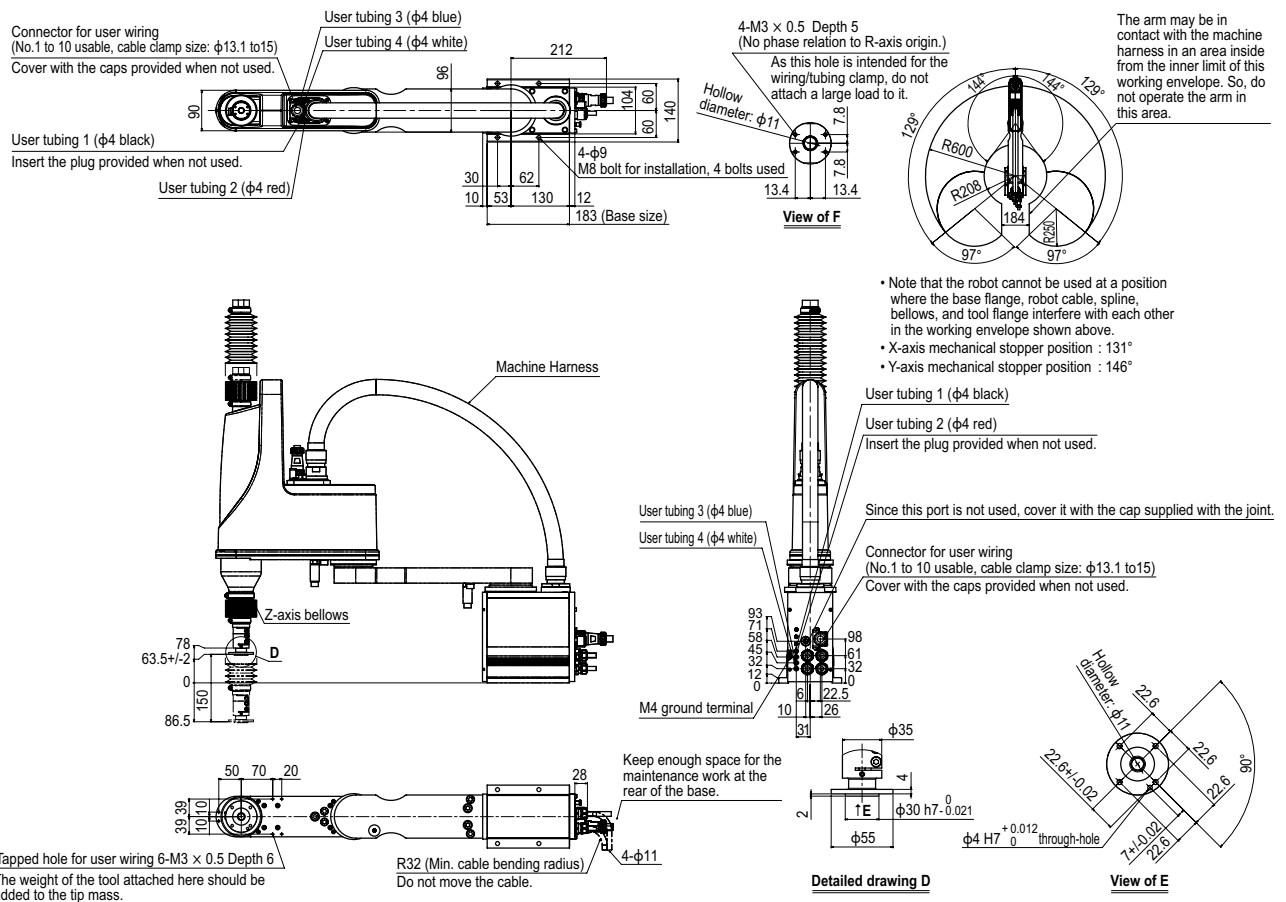
**Note.** To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot>

## YK600XGLP



## YK600XGLP Tool flange mount type



# YK600XGP

Dust-proof & drip-proof type

- Arm length 600mm
- Maximum payload 10kg

## Ordering method

**YK600XGP**

**F**

**RCX340-4**

Model	Z axis stroke	Tool flange	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
	200: 200mm 300: 300mm	F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	300 mm	300 mm	200 mm   300 mm	—
		+/-130 °	+/-145 °	—	+/-360 °
AC servo motor output		400 W	200 W	200 W	200 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability	Note 1	+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed		8.4 m/sec		2.3 m/sec   1.7 m/sec	1700 °/sec
Maximum payload		10 kg			
Standard cycle time: with 2kg payload	Note 2	0.56 sec			
R-axis tolerable moment of inertia	Note 3	0.3 kgm <sup>2</sup>			
Protection class	Note 4	Equivalent to IP65 (IEC 60529)			
User wiring (sq × wires)		0.2 × 20			
User tubing (Outer diameter)		φ 6 × 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		Z axis 200 mm: 33 kg Z axis 300 mm: 34 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

## Controller

Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)

See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

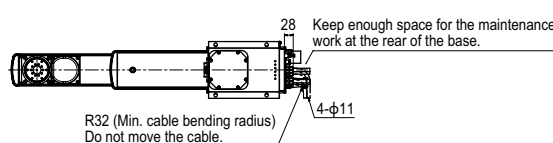
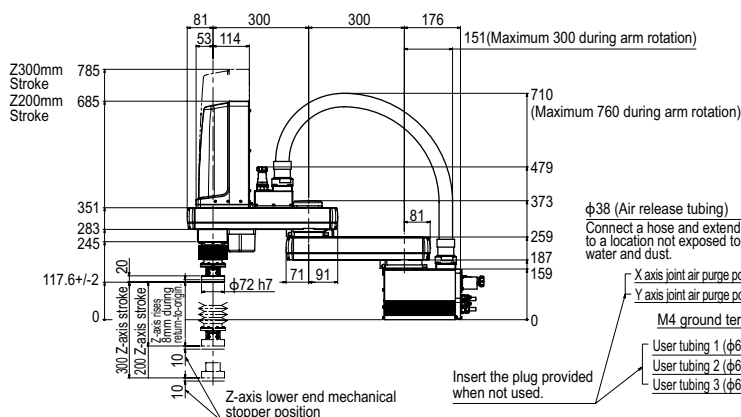
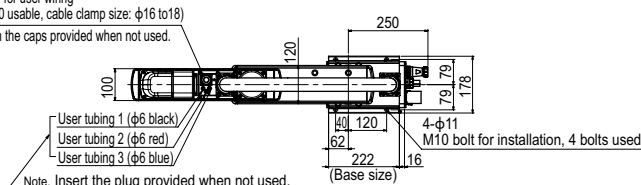
Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot/>

## YK600XGP

Connector for user wiring

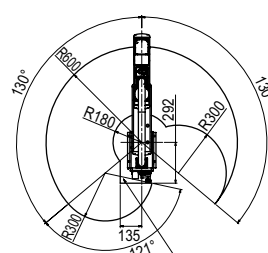
(No.1 to 20 usable, cable clamp size: φ16 to18)

Cover with the caps provided when not used.



If the robot enters the inside of the corner of dimensions 135 and 292, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

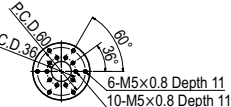
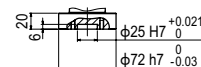
### Working envelope of left-handed system



If the robot enters the inside of the corner of dimensions 135 and 292, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

### Working envelope of right-handed system

- Note that the robot cannot be used at a position where the base flange, robot cable, spline, and bellows interfere with each other in the working envelope shown above.
- X-axis mechanical stopper position : 132°
- Y-axis mechanical stopper position : 147°



### Z axis tip shape

\* There is no phase relation between each position of M5 tapped holes and R-axis origin position.

### Dust-proof & drip-proof type

- Arm length 600mm
- Maximum payload 20kg

### Ordering method

<b>YK600XGHP</b>		<b>F</b>		<b>RCX340-4</b>							
<b>Model</b>	<b>Z axis stroke</b> 200: 200mm 400: 400mm	<b>Tool flange</b> F: With tool flange	<b>Cable</b> 3L: 3.5m 5L: 5m 10L: 10m	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (O.P.A)</b>	<b>Option B (O.P.B)</b>	<b>Option C (O.P.C)</b>	<b>Option D (O.P.D)</b>	<b>Option E (O.P.E)</b>	<b>Absolute battery</b>
Specify various controller setting items. RCX340 ▶ <b>P.636</b>											

## ■ Specifications

			X-axis	Y-axis	Z-axis		R-axis
Axis specifications	Arm length		200 mm	400 mm	200 mm	400 mm	–
	Rotation angle		+/-130 °	+/-150 °	–		+/-360 °
AC servo motor output			750 W	400 W	400 W		200 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled				
		Speed reducer to output	Direct-coupled				
Repeatability <sup>Note 1</sup>			+/-0.02 mm		+/-0.01 mm		+/-0.004 °
Maximum speed			7.7 m/sec		2.3 m/sec	1.7 m/sec	920 °/sec
Maximum payload			20 kg				
Standard cycle time: with 2kg payload			0.57 sec				
R-axis tolerable moment of inertia <sup>Note 3</sup>			1.0 kgm <sup>2</sup>				
Protection class <sup>Note 4</sup>			Equivalent to IP65 (IEC 60529)				
User wiring (sq × wires)			0.2 × 20				
User tubing (Outer diameter)			φ 6 × 3				
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)				
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m				
Weight			Z axis 200 mm: 52 kg Z axis 400 mm: 54 kg				

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

#### Controller

Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

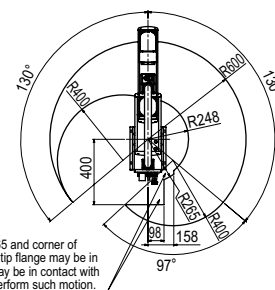
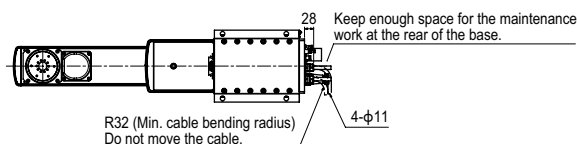
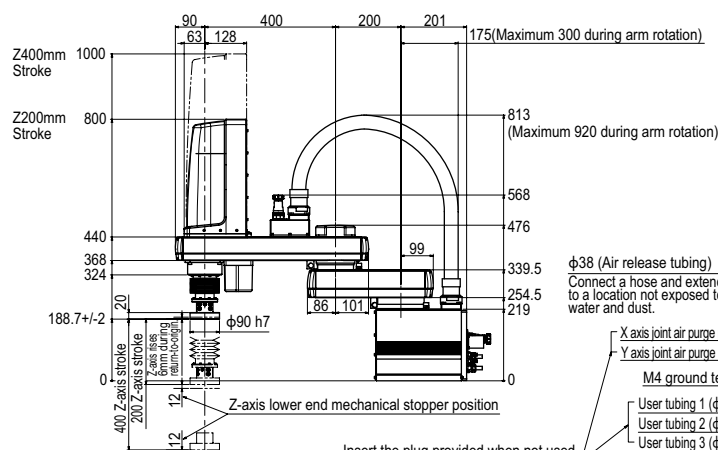
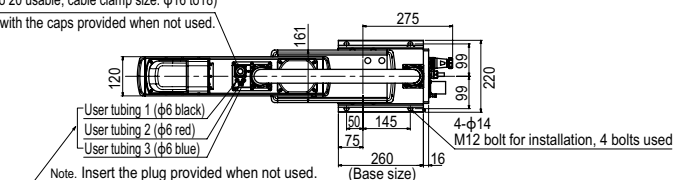
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

**Note.** To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

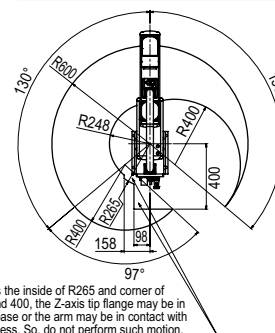
Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
**<https://global.yamaha-motor.com/business/robot/>**

## YK600XGHP

Connector for user wiring  
(No.1 to 20 usable, cable clamp size:  $\phi 16$  to 18)  
Cover with the caps provided when not used.



### Working envelope of left-handed system



### Working envelope of right-handed system

- Note that the robot cannot be used at a position where the base flange, robot cable, spline, and bellows interfere with each other in the working envelope shown above.

- X-axis mechanical stopper position : 132°
- Y-axis mechanical stopper position : 152°

11  
11  
The relation between each position of M5 tapped holes  
position.

# YK700XGP

Dust-proof & drip-proof type



- Arm length 700mm
- Maximum payload 20kg

## Ordering method

<b>YK700XGP</b>		<b>F</b>		<b>RCX340-4</b>							
Model	Z axis stroke 200: 200mm 400: 400mm	Tool flange F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
Specify various controller setting items. RCX340 ▶ <b>P.636</b>											

Specify various controller setting items. RCX340 ▶ **P.636**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	300 mm	400 mm	200 mm / 400 mm	—
		+/-130 °	+/-150 °	—	+/-360 °
AC servo motor output		750 W	400 W	400 W	200 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability	Note 1	+/-0.02 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		8.4 m/sec	2.3 m/sec / 1.7 m/sec	920 °/sec	
Maximum payload		20 kg			
Standard cycle time: with 2kg payload	Note 2	0.52 sec			
R-axis tolerable moment of inertia	Note 3	1.0 kgm <sup>2</sup>			
Protection class	Note 4	Equivalent to IP65 (IEC 60529)			
User wiring		0.2 sq × 20 wires			
User tubing (Outer diameter)		φ 6 × 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		Z axis 200 mm: 54 kg Z axis 400 mm: 56 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

## Controller

Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

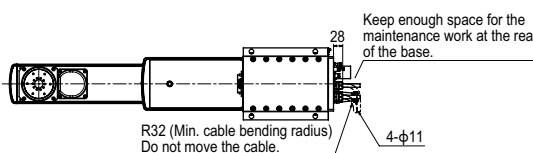
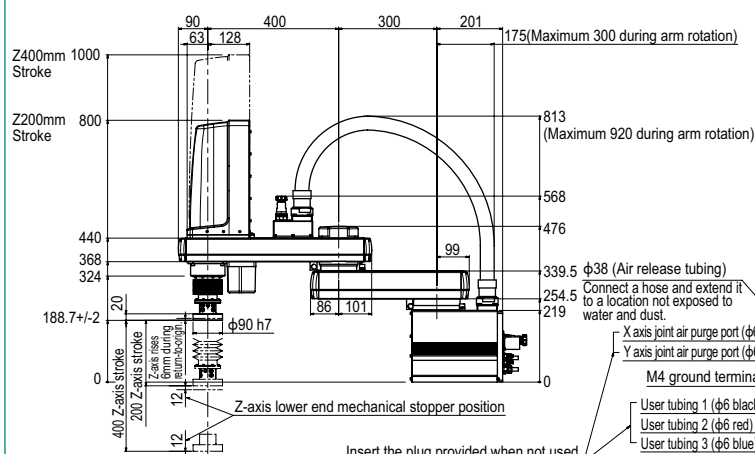
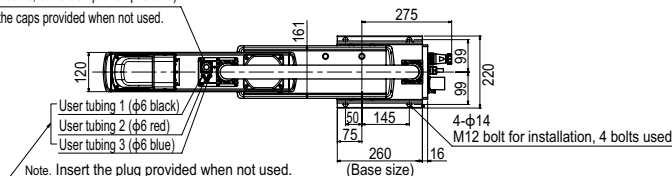
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

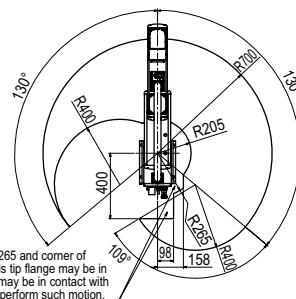
Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot/>

## YK700XGP

Connector for user wiring  
(No.1 to 20 usable, cable clamp size: φ16 to18)  
Cover with the caps provided when not used.

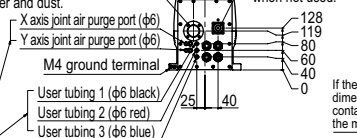


If the robot enters the inside of R265 and corner of dimensions 98 and 400, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

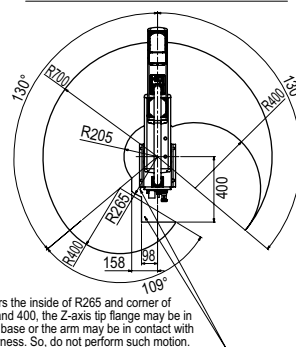


Working envelope of left-handed system

Connector for user wiring  
(No.1 to 20 usable, cable clamp size: φ16 to18)  
Cover with the caps provided when not used.



If the robot enters the inside of R265 and corner of dimensions 98 and 400, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.



Working envelope of right-handed system

- Note that the robot cannot be used at a position where the base flange, robot cable, spline, and bellows interfere with each other in the working envelope shown above.
- X-axis mechanical stopper position : 132°
- Y-axis mechanical stopper position : 152°

\* There is no phase relation between each position of M5 tapped holes and R-axis origin position.



### Dust-proof & drip-proof type

- Arm length 800mm
- Maximum payload 20kg

### Ordering method

<b>YK800XGP</b>		<b>F</b>		<b>RCX340-4</b>							
<b>Model</b>	<b>Z axis stroke</b> 200: 200mm 400: 400mm	<b>Tool flange</b> F: With tool flange	<b>Cable</b> 3L: 3.5m 5L: 5m 10L: 10m	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (O.P.A)</b>	<b>Option B (O.P.B)</b>	<b>Option C (O.P.C)</b>	<b>Option D (O.P.D)</b>	<b>Option E (O.P.E)</b>	<b>Absolute battery</b>
Specify various controller setting items. RCX340 ▶ <b>P.636</b>											

## Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		400 mm	400 mm	200 mm	400 mm
	Rotation angle		+/-130 °	+/-150 °	-	
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>			+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			9.2 m/sec		2.3 m/sec	1.7 m/sec
Maximum payload			20 kg			
Standard cycle time: with 2kg payload <sup>Note 2</sup>			0.58 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>			1.0 kgm <sup>2</sup>			
Protection class <sup>Note 4</sup>			Equivalent to IP65 (IEC 60529)			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			φ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 56 kg Z axis 400 mm: 58 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

**Controller**

Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

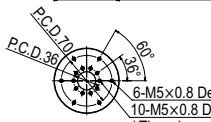
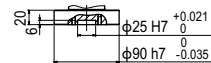
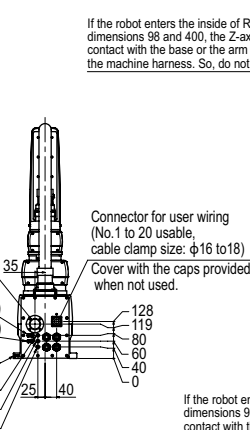
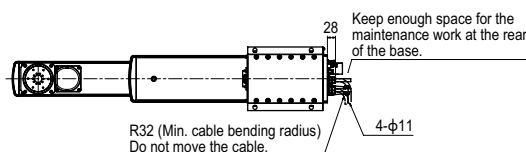
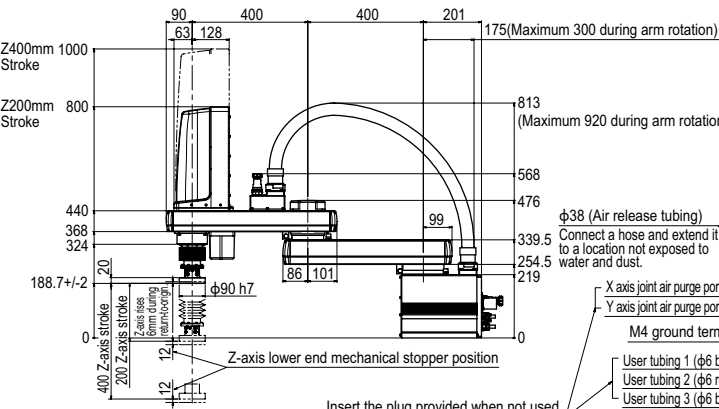
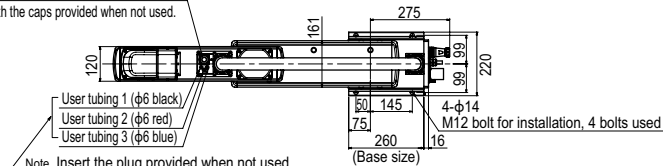
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

**Note.** To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

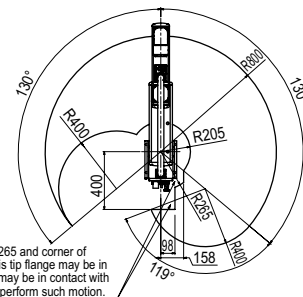
Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
**<https://global.yamaha-motor.com/business/robot>**

## YK800XGP

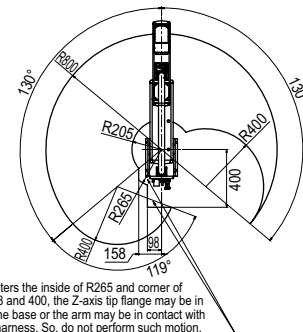
Connector for user wiring  
(No.1 to 20 usable, cable clamp size:  $\phi 16$  to 18)  
Cover with the caps provided when not used.



### Z axis tip shape



### Working envelope of left-handed system



### Working envelope of right-handed system

- Note that the robot cannot be used at a position where the base flange, robot cable, spline, and bellows interfere with each other in the working envelope shown above.
- X-axis mechanical stopper position : 132°
- Y-axis mechanical stopper position : 152°

\* There is no phase relation between each position of M5 tapped holes and R-axis origin position.

# YK900XGP

### Dust-proof & drip-proof type

- Arm length 900mm
- Maximum payload 20kg

### Ordering method

<b>YK900XGP</b>		<b>F</b>		<b>RCX340-4</b>							
Model	Z axis stroke 200: 200mm 400: 400mm	Tool flange F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
Specify various controller setting items. RCX340 ▶ <b>P.636</b>											

## ■ Specifications

			X-axis	Y-axis	Z-axis		R-axis
Axis specifications	Arm length		500 mm	400 mm	200 mm	400 mm	–
	Rotation angle		+/-130 °	+/-150 °	–		+/-360 °
AC servo motor output			750 W	400 W	400 W		200 W
Deceleration mechanism	Transmission method	Motor to speed reducer	Direct-coupled				
		Speed reducer to output	Direct-coupled				
Repeatability <sup>Note 1</sup>			+/-0.02 mm		+/-0.01 mm		+/-0.004 °
Maximum speed			9.9 m/sec		2.3 m/sec 1.7 m/sec		920 °/sec
Maximum payload			20 kg				
Standard cycle time: with 2kg payload <sup>Note 2</sup>			0.59 sec				
R-axis tolerable moment of inertia <sup>Note 3</sup>			1.0 kgm <sup>2</sup>				
Protection class <sup>Note 4</sup>			Equivalent to IP65 (IEC 60529)				
User wiring (sq × wires)			0.2 × 20				
User tubing (Outer diameter)			φ 6 × 3				
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)				
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m				
Weight			Z axis 200 mm: 58 kg Z axis 400 mm: 60 kg				

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

#### Controller

Controller	Power capacity (VA)	Operation method
RXC340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)

See our robot manuals (installation manuals) for detailed information.

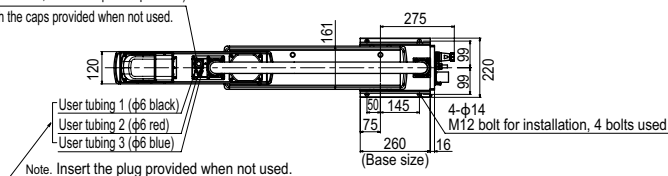
**Note.** To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot>

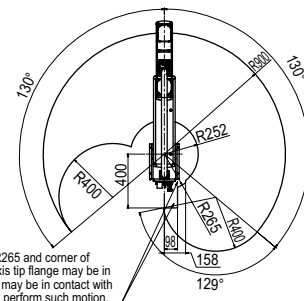
## YK900XGP

Connector for user wiring  
(No.1 to 20 usable, cable clamp size:  $\phi 16$  to 18)

Cover with the caps provided when not used.

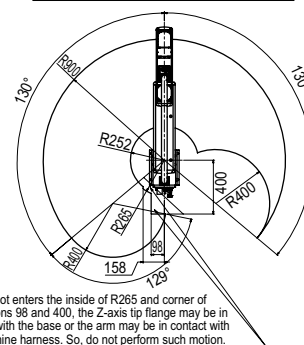


Note. Insert the plug provided when not used.



If the robot enters the inside of R265 and corner of dimensions 98 and 400, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

### Working envelope of left-handed system

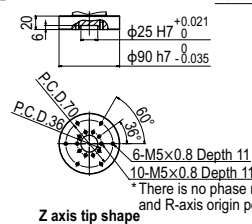


If the robot enters the inside of R265 and corner of dimensions 98 and 400, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

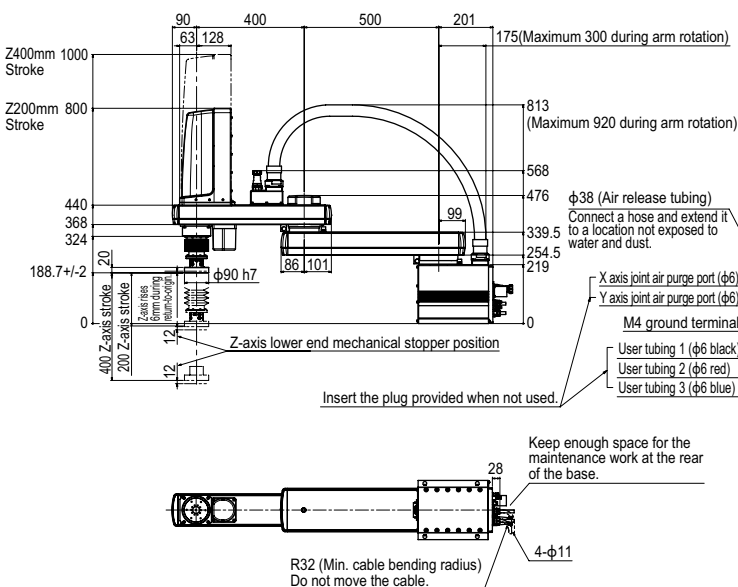
**Working envelope of right-handed system**

- Note that the robot cannot be used at a position where the base flange, robot cable, spline, and bellows interfere with each other in the working envelope shown above.
- X-axis mechanical stopper position : 132°
- Y-axis mechanical stopper position : 152°

\* There is no phase relation between each position of M5 tapped holes and R-axis origin position.



### Z axis tip shape



Keep enough space for the maintenance work at the rear of the base.

R32 (Min. cable bending radius)  
Do not move the cable.

radius) /  $\nabla$  4- $\Phi$ 11

Do not move the cable.

