

SCARA ROBOTS

YK-X

SERIES



Articulated robots YA
Linear conveyor modules LCM
Single-axis robots CX
Motor-less single axis actuator Robonity
Compact single-axis robots TRANSEVO
Single-axis robots FLIP-X
Linear motor single-axis robots PHASER
Cartesian robots XY-X
SCARA robots YK-X
Pick & place robots YP-X
CLEAN
CONTROLLER
INFORMATION
Orbit/Extra small type
Small / Medium type
Large type
Wall mount / Inverse type
Dust-proof & drip-proof type

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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 ²)	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.494				
	YK500TW	6.8												0.29	5.0	0.005 (Rated) 0.05 (Maximum)		P.496				
Extra small type	YK120XG	3.3															0.33	1.0	0.01	●	P.498	
	YK150XG	3.4															0.33	1.0	0.01	●	P.499	
	YK180XG	3.3															0.33	1.0	0.01	●	P.500	
	YK180X	3.3															0.39	1.0	0.01	●	P.501	
	YK220X	3.4															0.42	1.0	0.01	●	P.502	
	YK250XG	4.5															0.43	5.0	0.05	●	P.503	
	YK350XG	5.6															0.44	5.0	0.05	●	P.505	
	YK400XE-4	6.0															0.41	4.0	0.05			P.507
	YK400XG	6.1															0.45	5.0	0.05	●	P.508	
	Small type	YK500XGL	5.1															0.48	5.0	0.05	●	P.510
YK500XG		7.6															0.42	10.0	0.30	●	P.512	
YK510XE-10		7.8															0.38	10.0	0.30			P.513
YK600XGL		4.9															0.54	5.0	0.05	●	P.514	
YK600XG		8.4															0.43	10.0	0.30	●	P.516	
YK610XE-10		8.6															0.39	10.0	0.30			P.517
YK600XGH		7.7															0.47	20.0	1.0	●	P.518	
YK700XGL		9.2															0.50	10.0	0.30	●	P.519	
Medium type	YK710XE-10	9.5															0.42	10.0	0.30			P.520
	YK700XG	8.4															0.42	20.0	1.0	●	P.521	
	YK800XG	9.2															0.48	20.0	1.0	●	P.522	
	YK900XG	9.9															0.49	20.0	1.0	●	P.523	
	YK1000XG	10.6															0.49	20.0	1.0	●	P.524	
	YK1200X	7.4															0.91	50.0	2.45			P.525
	YK300XGS	4.4															0.49	5.0	0.05	●	P.526	
	YK400XGS	6.1															0.49	5.0	0.05	●	P.528	
Large type	YK500XGS	7.6															0.45	10.0	0.3	●	P.530	
	YK600XGS	8.4															0.46	10.0	0.3	●	P.531	
	YK700XGS	8.4															0.42	20.0	1.0	●	P.532	
	YK800XGS	9.2															0.48	20.0	1.0	●	P.533	
	YK900XGS	9.9															0.49	20.0	1.0	●	P.534	
	YK1000XGS	10.6															0.49	20.0	1.0	●	P.535	
	YK250XGP	4.5															0.50	4.0	0.05	●	P.536	
	YK350XGP	5.6															0.52	4.0	0.05	●	P.538	
Wall mount / inverse type	YK400XGP	6.1															0.50	4.0	0.05	●	P.540	
	YK500XGLP	5.1															0.66	4.0	0.05	●	P.542	
	YK500XGP	7.6															0.55	10.0	0.3	●	P.544	
	YK600XGLP	4.9															0.71	4.0	0.05	●	P.545	
	YK600XGP	8.4															0.56	10.0	0.3	●	P.547	
	YK600XGHP	7.7															0.57	18.0	1.0	●	P.548	
	YK700XGP	8.4															0.52	20.0	1.0	●	P.549	
	YK800XGP	9.2															0.58	20.0	1.0	●	P.550	
	YK900XGP	9.9															0.59	20.0	1.0	●	P.551	
	YK1000XGP	10.6															0.59	20.0	1.0	●	P.552	

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.678**

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	RCX340

Note 1. Available only for the master.

Robot ordering method terminology

① Model	Enter the robot unit model.
② Z-axis stroke	Select the Z axis stroke. The stroke varies with the model you select so see that model's page to confirm the specifications.
③ Tool flange	Tool flange option for easy mounting of a tool to the tip. No entry: None F: With tool flange
④ Hollow shaft	Hollow shaft option for easy routing of air tubes and harness wires. No entry: None S: With hollow shaft
⑤ Cable	Select the length of the robot cable connecting the robot and controller. 2L: 2m ^(Note 1) 3L: 3.5m 5L: 5m 10L: 10m <small>Note 1. Only selectable for YK120XG, YK150XG, YK180XG.</small>
⑥ Controller	Select the RCX340.

Articulated robots
YA

Linear conveyor modules
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Cartesian robots
XY-X

SCARA robots
YK-X

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YP-X

CLEAN

CONTROLLER

INFORMATION

Orbit/Extra small type

Small / Medium type

Large type

Wall mount / Inverse type

Dust-proof & drip-proof type

YK350TW

Orbit type



- Arm length 350mm
- Maximum payload 5kg

Ordering method

YK350TW-130

RCX340-4

Model	Z axis stroke 130: 130mm	Tool flange No entry: None F: With tool flange	Hollow shaft No entry: None 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
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Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

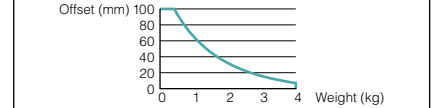
Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	175 mm	175 mm	175 mm	130 mm	-
	Rotation angle	+/-225 °	+/-225 °	-	+/-720 °
	AC servo motor output	750 W	400 W	200 W	105 W
Deceleration mechanism	Transmission method	Timing belt	Direct-coupled	Timing belt	Timing belt
	Motor to speed reducer	Timing belt	Direct-coupled	Timing belt	
Repeatability	Speed reducer to output	Direct-coupled			
	Note 1	+/-0.01 mm	+/-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	Rated	0.005 kgm ²			
	Maximum	0.05 kgm ²			
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)

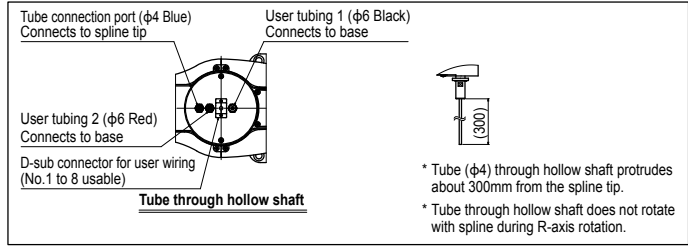
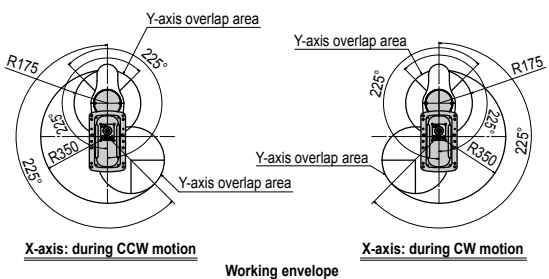
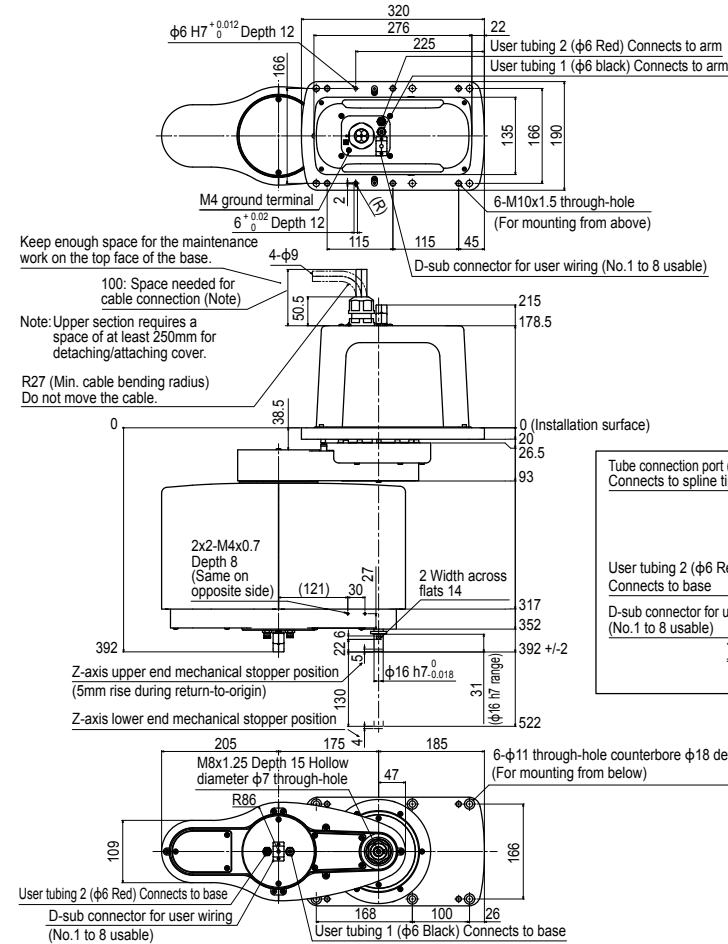


Note. When the payload exceeds 4kg, it is predicted that the R-axis moment of inertia may exceed the rated value. So, make proper parameter setting.

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.

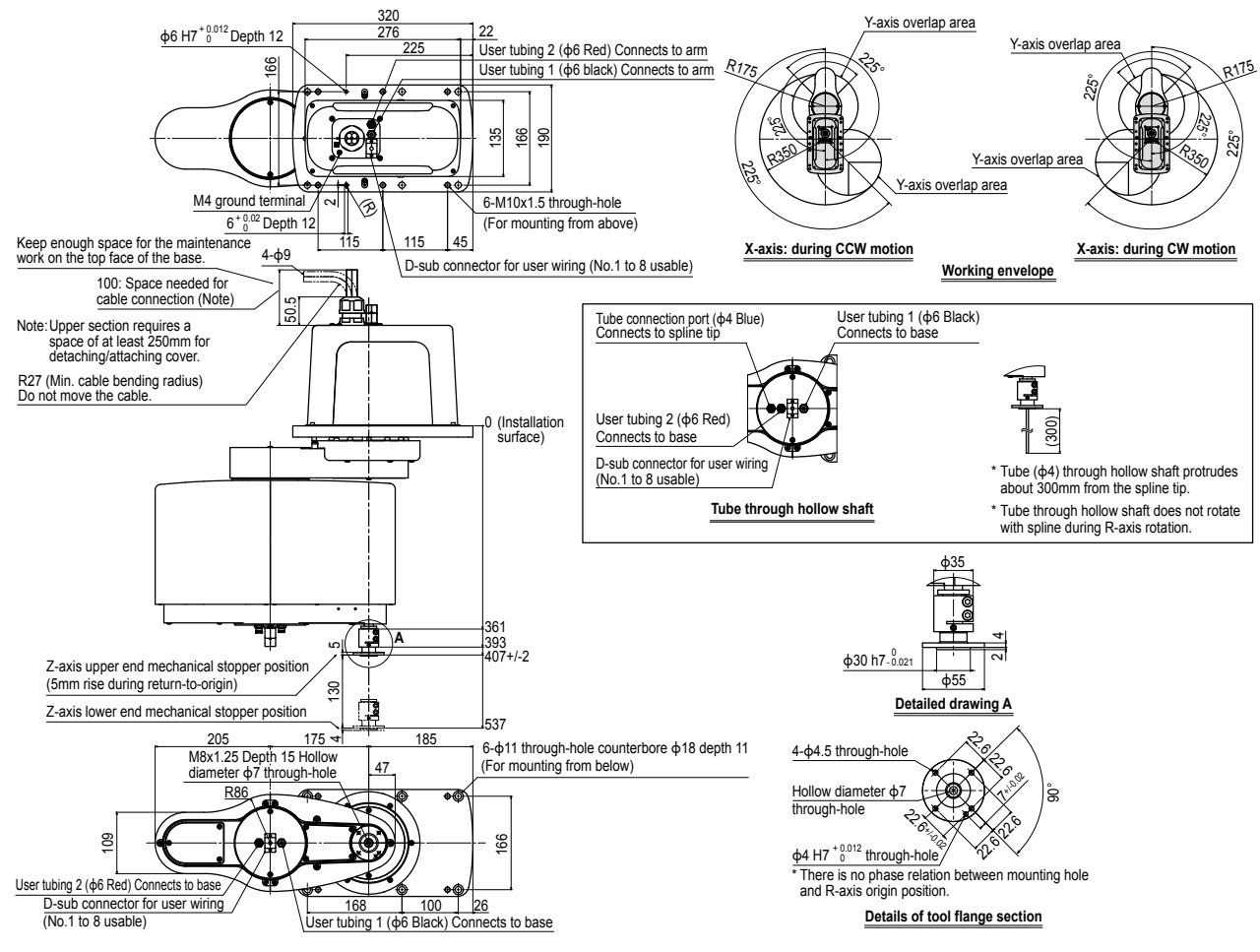
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
<https://global.yamaha-motor.com/business/robot/>

YK350TW



- * Tube (φ4) through hollow shaft protrudes about 300mm from the spline tip.
- * Tube through hollow shaft does not rotate with spline during R-axis rotation.

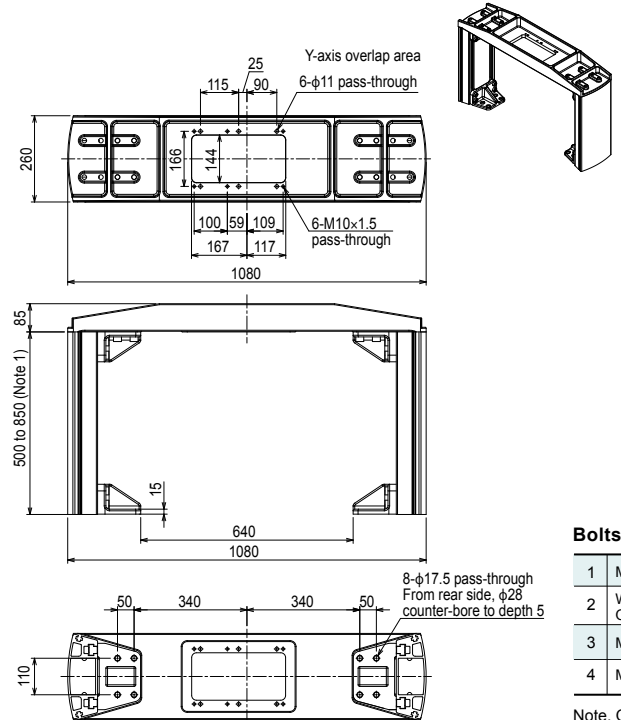
YK350TW Tool flange mount type



Dedicated mounting bracket for the YK-TW <BASE POST ASSY.>

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

No.	Part Description	Quantity
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 φ26, Inside diameter φ16]	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.

- Articulated robots YA
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- Cartesian robots XY-X
- SCARA robots YK-X
- Pick & place robots YP-X
- CLEAN
- CONTROLLER INFORMATION
- Orbit type
- Small / Medium type
- Large type
- Wall mount / Inverse type
- Dust-proof & drip-proof type

YK500TW

Orbit type



- Arm length 500mm
- Maximum payload 5kg

Ordering method

YK500TW-130

RCX340-4

Model	Z axis stroke 130: 130mm	Tool flange No entry: None F: With tool flange	Hollow shaft No entry: None 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
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Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

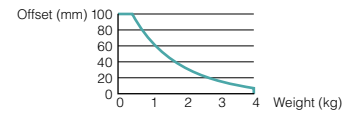
		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	250 mm	250 mm	130 mm	-
	Rotation angle	+/-225 °	+/-225 °	-	+/-720 °
AC servo motor output		750 W	400 W	200 W	105 W
Deceleration mechanism	Transmission method	Timing belt	Direct-coupled	Timing belt	Timing belt
	Motor to speed reducer				
Speed reducer to output		Direct-coupled			
Repeatability ^{Note 1}		+/-0.015 mm		+/-0.01 mm	+/-0.01 °
Maximum speed		6.8 m/sec		1.5 m/sec	3000 °/sec
Maximum payload ^{Note 2}		5 kg			
Standard cycle time: with 1kg payload ^{Note 3}		0.29 sec			
R-axis tolerable moment of inertia ^{Note 4}	Rated	0.005 kgm ²			
	Maximum	0.05 kgm ²			
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

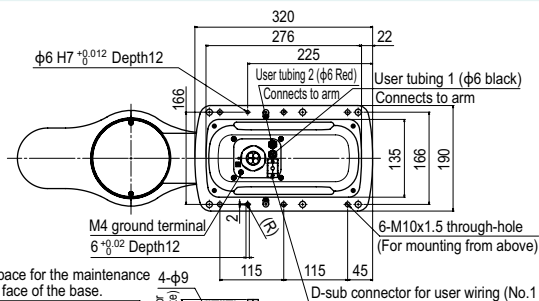
R-axis moment of inertia (load inertia)
 Recommended positional relationship between the load weight and the offset amount from the center of the R-axis (center of gravity position)



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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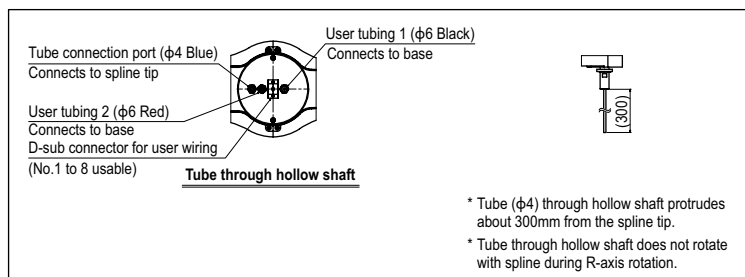
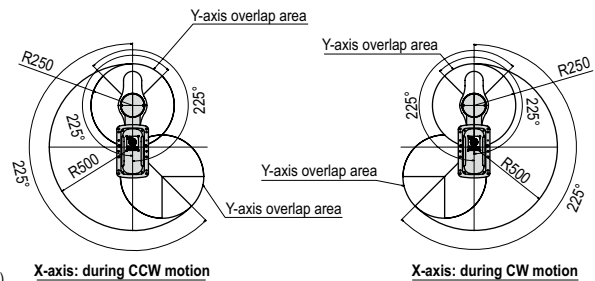
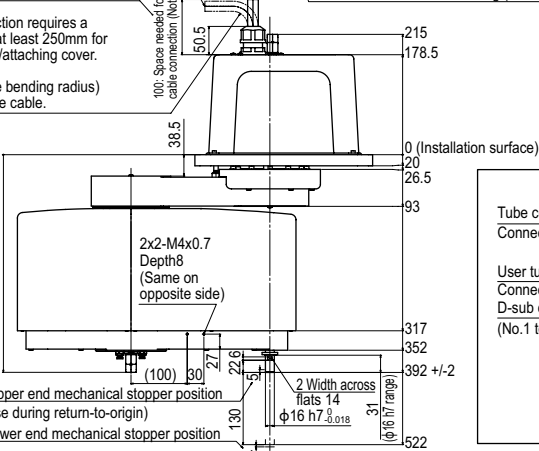
YK500TW



Keep enough space for the maintenance work on the top face of the base.

Note: Upper section requires a space of at least 250mm for detaching/attaching cover.

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



* Tube (φ4) through hollow shaft protrudes about 300mm from the spline tip.
 * Tube through hollow shaft does not rotate with spline during R-axis rotation.

Articulated robots
YA

Linear conveyor modules
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Linear motor single-axis robots
PHASER

Cartesian robots
XY-X

SCARA robots
YK-X

Pick & place robots
YP-X

CLEAN

CONTROLLER INFORMATION

Orbit type

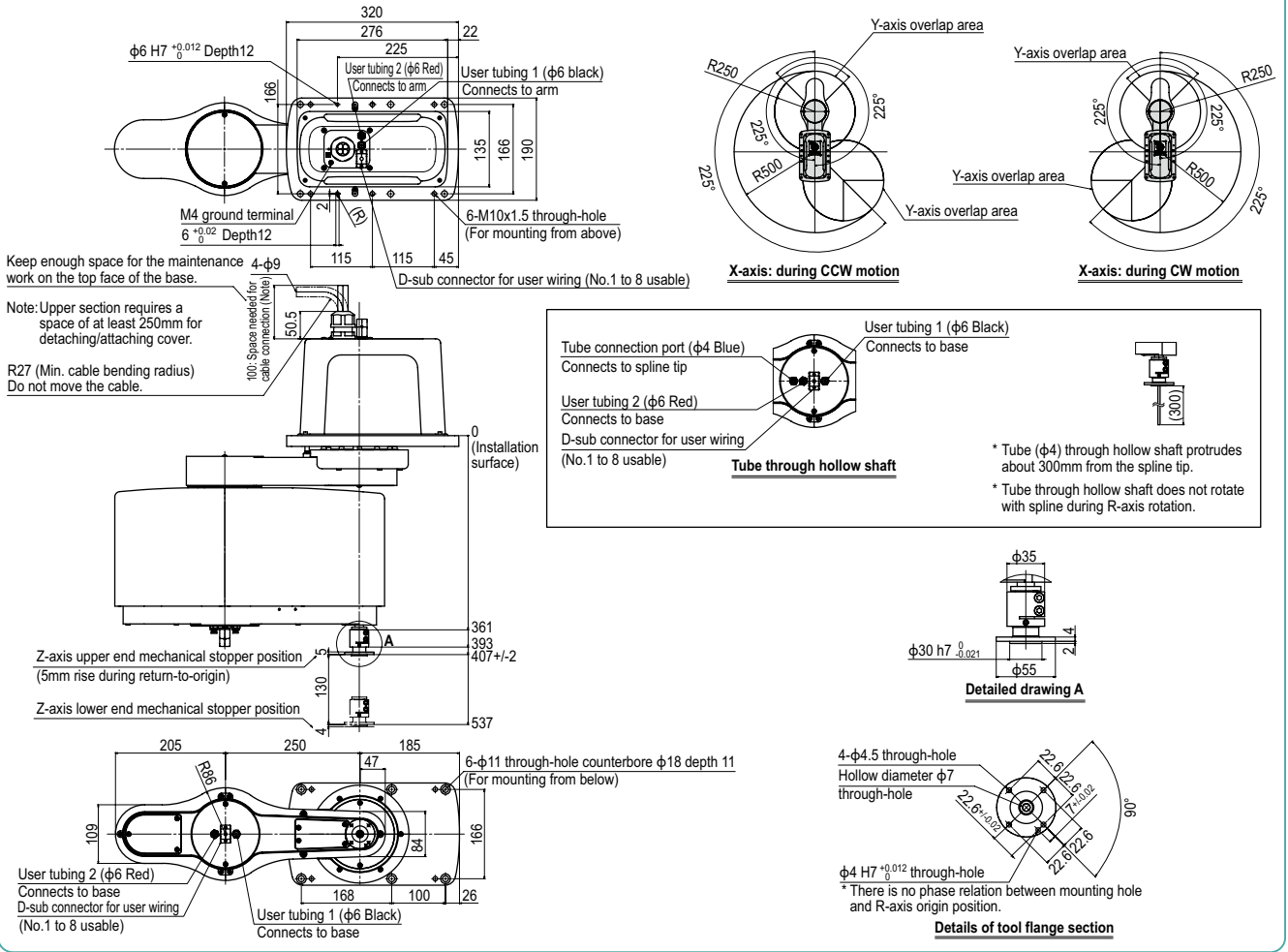
Small / Medium type

Large type

Wall mount / Inverse type

Dust-proof & drip-proof type

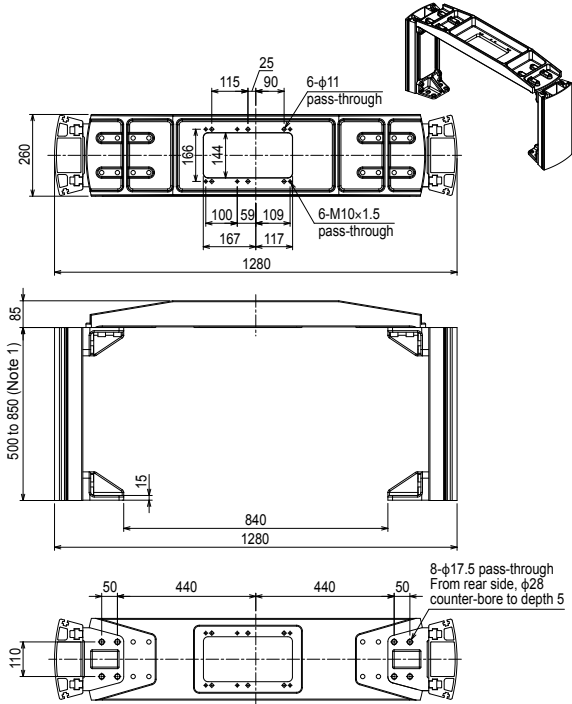
YK500TW Tool flange mount type



Dedicated mounting bracket for the YK-TW <BASE POST ASSY.>

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

External diagram for the YK500TW



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.

YK120XG

Standard type: Extra small type

- Arm length 120mm
- Maximum payload 1kg

Ordering method

YK120XG - 50

Model	Z axis stroke	Cable
	50: 50mm	2L: 2m 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.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	45 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	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 ²			
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

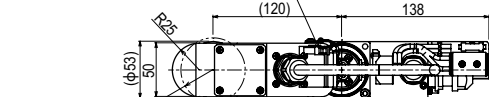
Controller	Power capacity (VA)	Operation method
RCX340	300	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

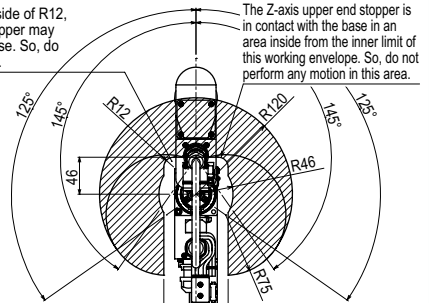
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<https://global.yamaha-motor.com/business/robot/>

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.

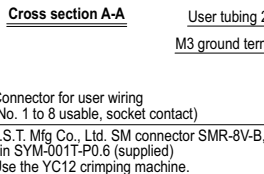
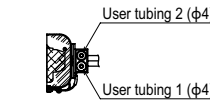
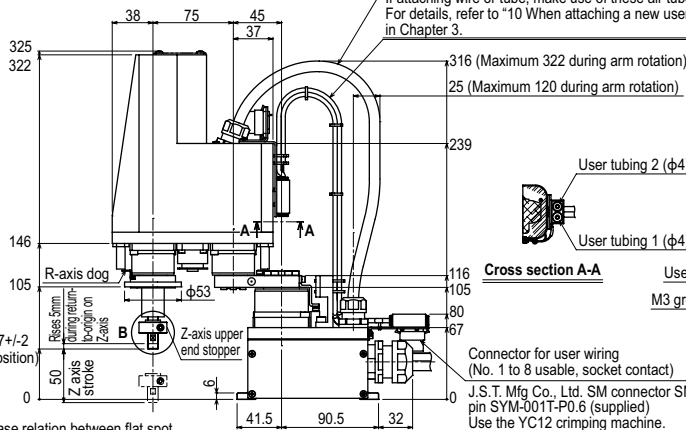


Working envelope

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

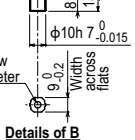
When performing return-to-origin, move the axes counterclockwise in advance from the position shown above.

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.

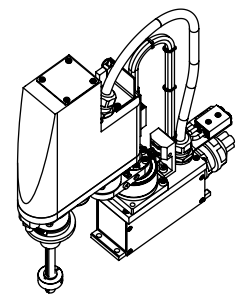


No phase relation between flat spot and R-axis origin

User tool installation range



Tapped hole for user 4-M3 x 0.5, depth: 7
 R27 (Min. cable bending radius) Do not move the cable.
 Keep enough space for the maintenance work at the rear of the base.



YK150XG

Standard type: Extra small type

- Arm length 150mm
- Maximum payload 1kg

Ordering method

YK150XG - 50

RCX340-4

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
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Specify various controller setting items. RCX340 ▶ **P.678**

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	Direct-coupled			
	Motor to speed reducer Speed reducer to output	Direct-coupled			
Repeatability ^{Note 1}		+/-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 ^{Note 2}		0.33 sec			
R-axis tolerable moment of inertia ^{Note 3}		0.01 kgm ²			
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}		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.

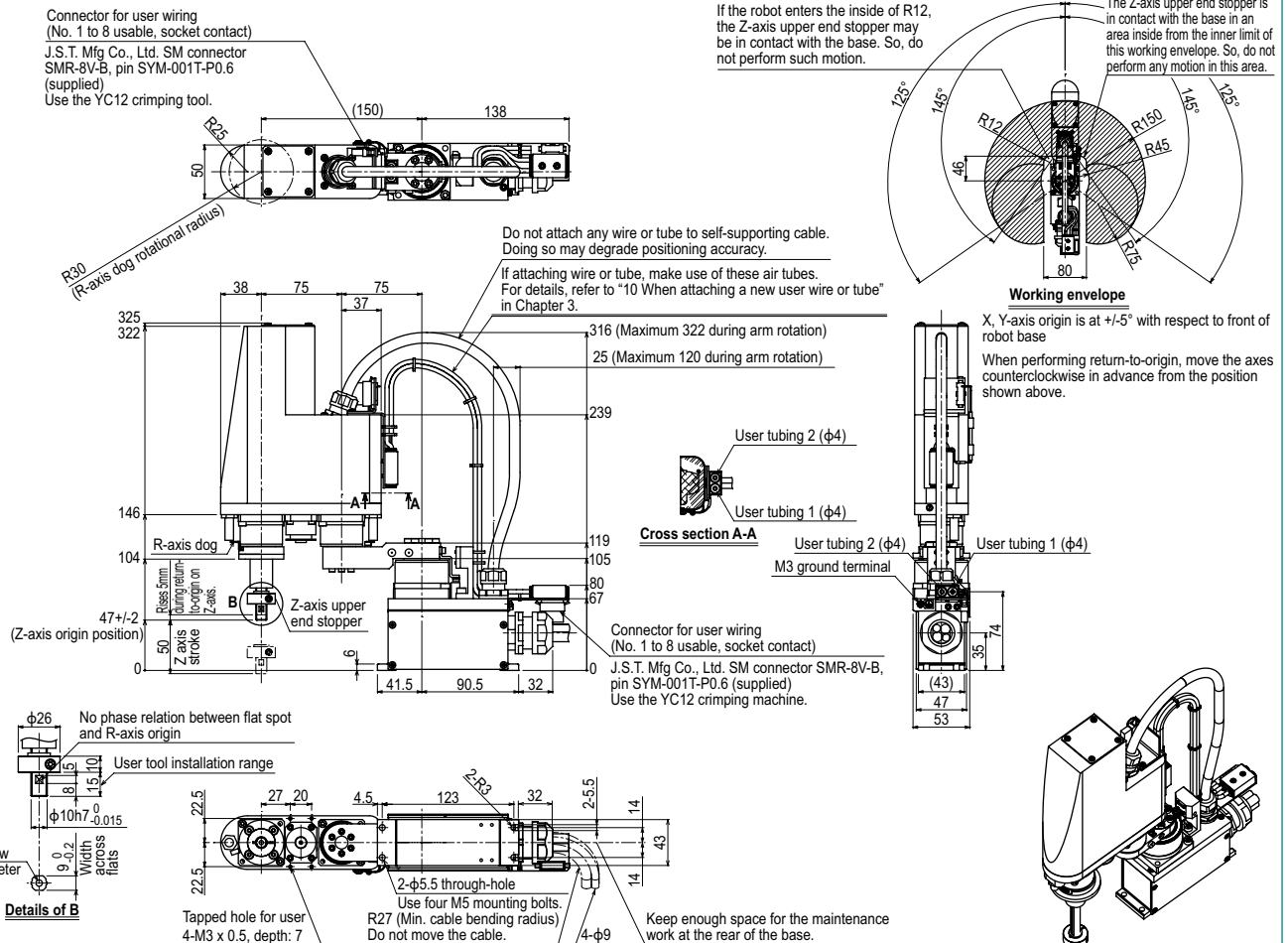
Controller

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.

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

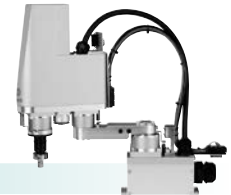
YK150XG



Articulated robots YA
 Linear conveyor modules LCM
 Single-axis robots CX
 Motor-less single-axis actuator Robomity
 Compact single-axis robots TRANSEVO
 Single-axis robots FLIP-X
 Linear motor single-axis robots PHASER
 Cartesian robots XY-X
 SCARA robots YK-X
 Pick & place robots YP-X
 CLEAN
 CONTROLLER INFORMATION
 Extra small type
 Small / Medium type
 Large type
 Wall mount / Inverse type
 Dust-proof & drip-proof type

YK180XG

Standard type: Extra small type



- Arm length 180mm
- Maximum payload 1kg

Ordering method

YK180XG - 50

Model	Z axis stroke	Cable
	50: 50mm	2L: 2m
		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.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	105 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	Direct-coupled			
	Motor to speed reducer 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 ²			
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}		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

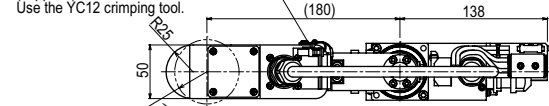
Controller	Power capacity (VA)	Operation method
RCX340	500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.)
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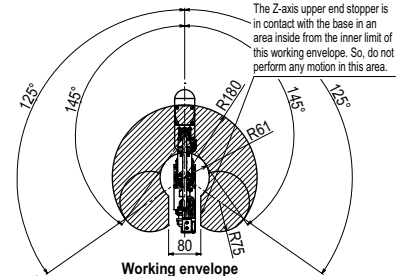
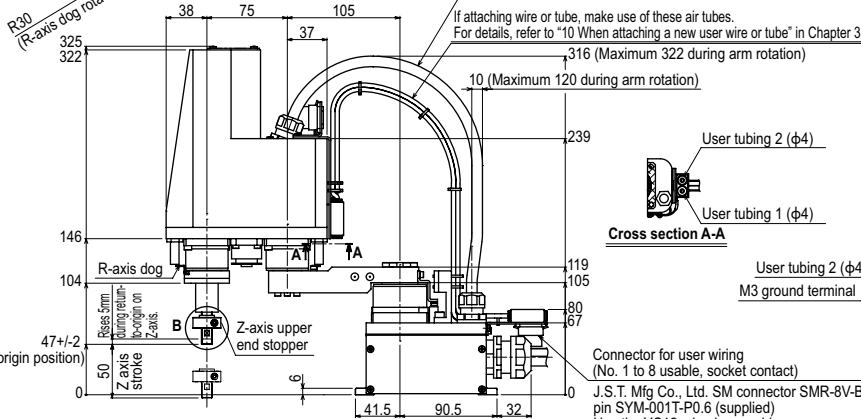
YK180XG

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.



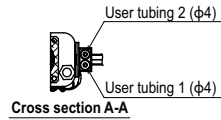
Do not attach any wire or tube to self-supporting cable.
Doing so may degrade positioning accuracy.

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.

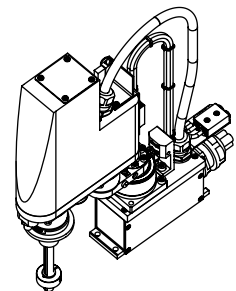
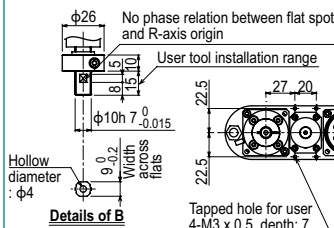


X, Y-axis origin is at +/-5° with respect to front of robot base

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



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 machine.



YK180X

Standard type: Extra small type



- Arm length 180mm
- Maximum payload 1kg

Ordering method

YK180X - 100

RCX340-4

Model	Z axis stroke 100: 100mm	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
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Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	71 mm	109 mm	100 mm	-
	Rotation angle	+/-120 °	+/-140 °	-	+/-360 °
AC servo motor output		50 W	30 W	30 W	30 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer Speed reducer to output	Direct-coupled			
Repeatability ^{Note 1}		+/-0.01 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		3.3 m/sec	0.7 m/sec	1700 °/sec	
Maximum payload		1.0 kg			
Standard cycle time: with 0.1kg payload ^{Note 2}		0.39 sec			
R-axis tolerable moment of inertia ^{Note 3}		0.01 kgm ²			
User wiring		0.1 sq × 6 wires			
User tubing (Outer diameter)		φ 3 × 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 (Excluding robot cable) ^{Note 4}		5.5 kg			
Robot cable weight		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.
 Note 2. When reciprocating 100mm 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. The total robot weight is the sum of the robot body weight and the cable weight.

Controller

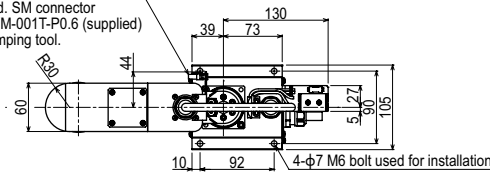
Controller	Power capacity (VA)	Operation method
RCX340	500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

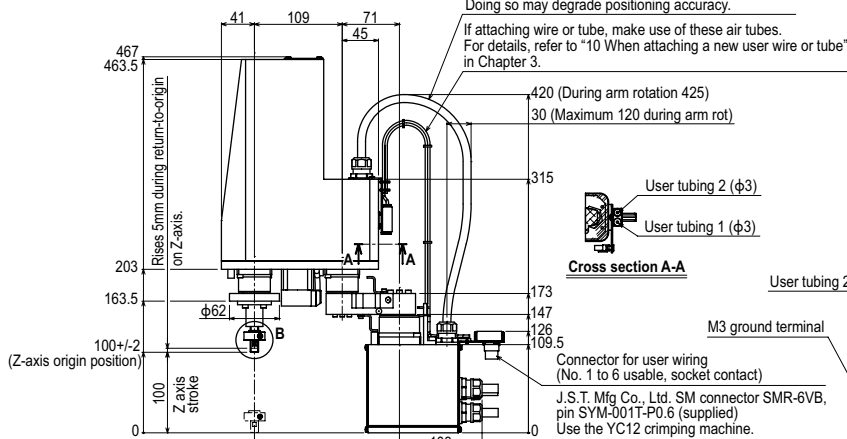
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<https://global.yamaha-motor.com/business/robot/>

YK180X

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

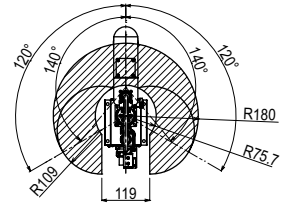


Do not attach any wire or tube to self-supporting cable. Doing so may degrade positioning accuracy.
 If attaching wire or tube, make use of these air tubes. For details, refer to "10 When attaching a new user wire or tube" in Chapter 3.



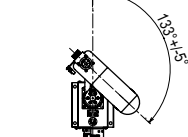
Cross section A-A

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



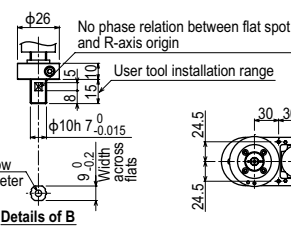
Working envelope

X-axis origin is at 0° +/-5° with respect to front of robot base

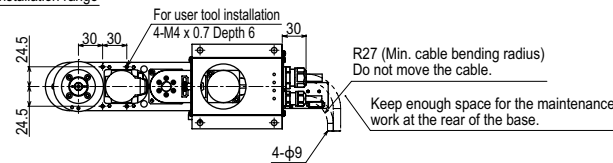


X, Y-axis origin position

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



Details of B



R27 (Min. cable bending radius)
 Do not move the cable.
 Keep enough space for the maintenance work at the rear of the base.

- Articulated robots
YA
- Linear conveyor modules
LCM
- Single-axis robots
CX
- Motor-less single-axis actuator
Robonity
- Compact single-axis robots
TRANSEVO
- Single-axis robots
FLIP-X
- Linear motor single-axis robots
PHASER
- Cartesian robots
XY-X
- SCARA robots
YK-X
- Pick & place robots
YP-X
- CLEAN
- CONTROLLER
- INFORMATION
- Extra small type
- Small / Medium type
- Large type
- Wall mount / Inverse type
- Dust-proof & drip-proof type

YK220X

Standard type: Extra small type



- Arm length 220mm
- Maximum payload 1kg

Ordering method

YK220X - 100

Z axis stroke
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.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	111 mm	109 mm	100 mm	-
	Rotation angle	+/-120 °	+/-140 °	-	+/-360 °
AC servo motor output		50 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		3.4 m/sec	0.7 m/sec	1700 °/sec	
Maximum payload		1.0 kg			
Standard cycle time: with 0.1kg payload ^{Note 2}		0.42 sec			
R-axis tolerable moment of inertia ^{Note 3}		0.01 kgm ²			
User wiring		0.1 sq × 6 wires			
User tubing (Outer diameter)		φ 3 × 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 (Excluding robot cable) ^{Note 4}		5.5 kg			
Robot cable weight		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.

Note 2. When reciprocating 100mm 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. The total robot weight is the sum of the robot body weight and the cable weight.

Controller

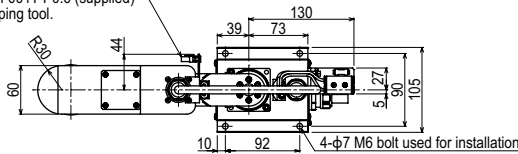
Controller	Power capacity (VA)	Operation method
RCX340	500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

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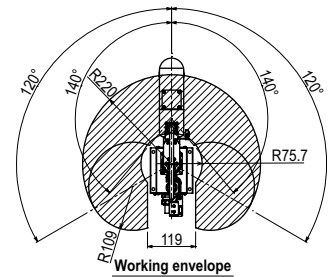
YK220X

Connector for user wiring
(No. 1 to 6 usable, socket contact)
J.S.T. Mfg Co., Ltd. SM connector
SMR-6VB, 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.



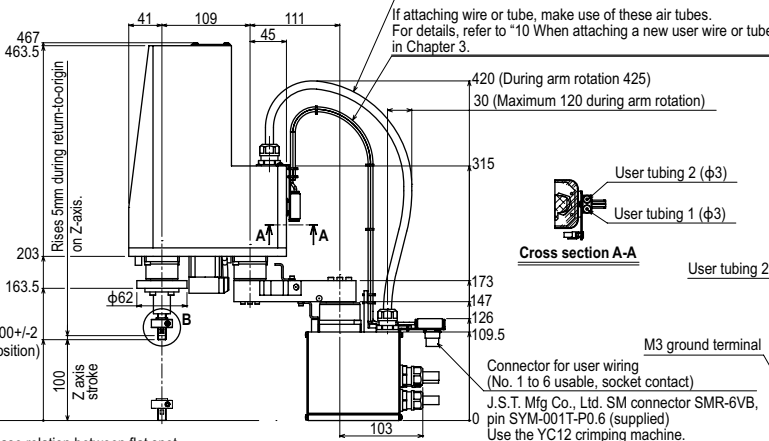
Working envelope

X-axis origin is at 0°/+5° with respect to front of robot base

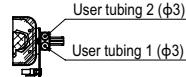


X, Y-axis origin position

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



Cross section A-A



User tubing 2 (φ3)

User tubing 1 (φ3)

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

M3 ground terminal

No phase relation between flat spot and R-axis origin

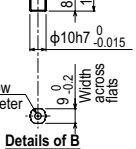
User tool installation range

For user tool installation

4-M4 x 0.7 Depth6

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

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



Details of B

YK250XG

Standard type: Small type

- Arm length 250mm
- Maximum payload 5kg

Ordering method

YK250XG - 150

Model	Z axis stroke 150: 150mm	Tool flange No entry: None F: With tool flange	Hollow shaft No entry: None S: With hollow shaft	Cable 3L: 3.5m 5L: 5m 10L: 10m
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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
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Specify various controller setting items. RCX340 ▶ **P.678**

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	Direct-coupled			
Transmission method	Direct-coupled			
Motor to speed reducer	Direct-coupled			
Speed reducer to output	Direct-coupled			
Repeatability <small>Note 1</small>	+/-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 <small>Note 4</small>)			
Standard cycle time: with 2kg payload <small>Note 2</small>	0.43 sec			
R-axis tolerable moment of inertia <small>Note 3</small>	0.05 kgm ² (0.5 kgfcm ²)			
User wiring	0.2 sq x 10 wires			
User tubing (Outer diameter)	φ 4 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	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

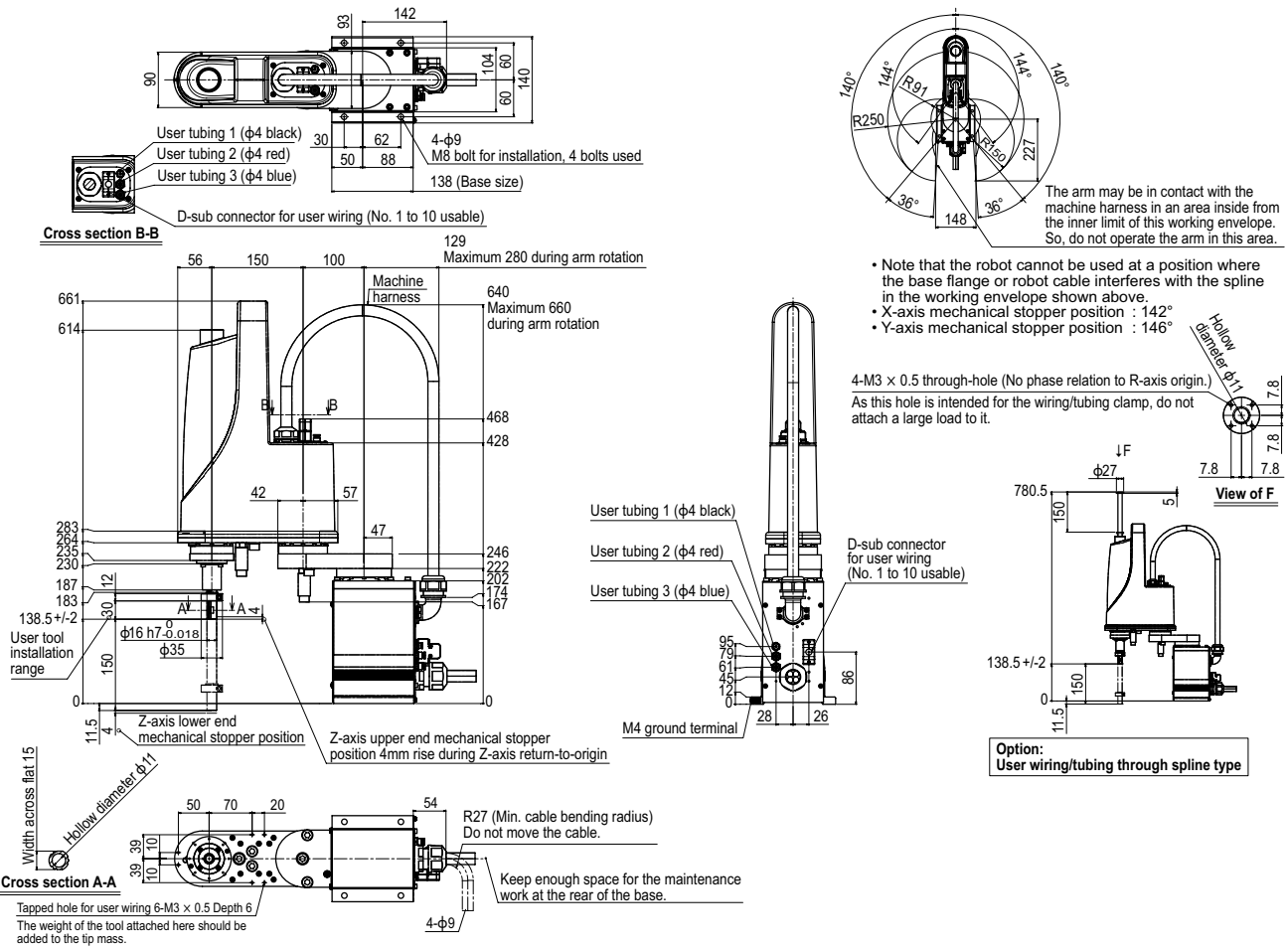
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.)
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.

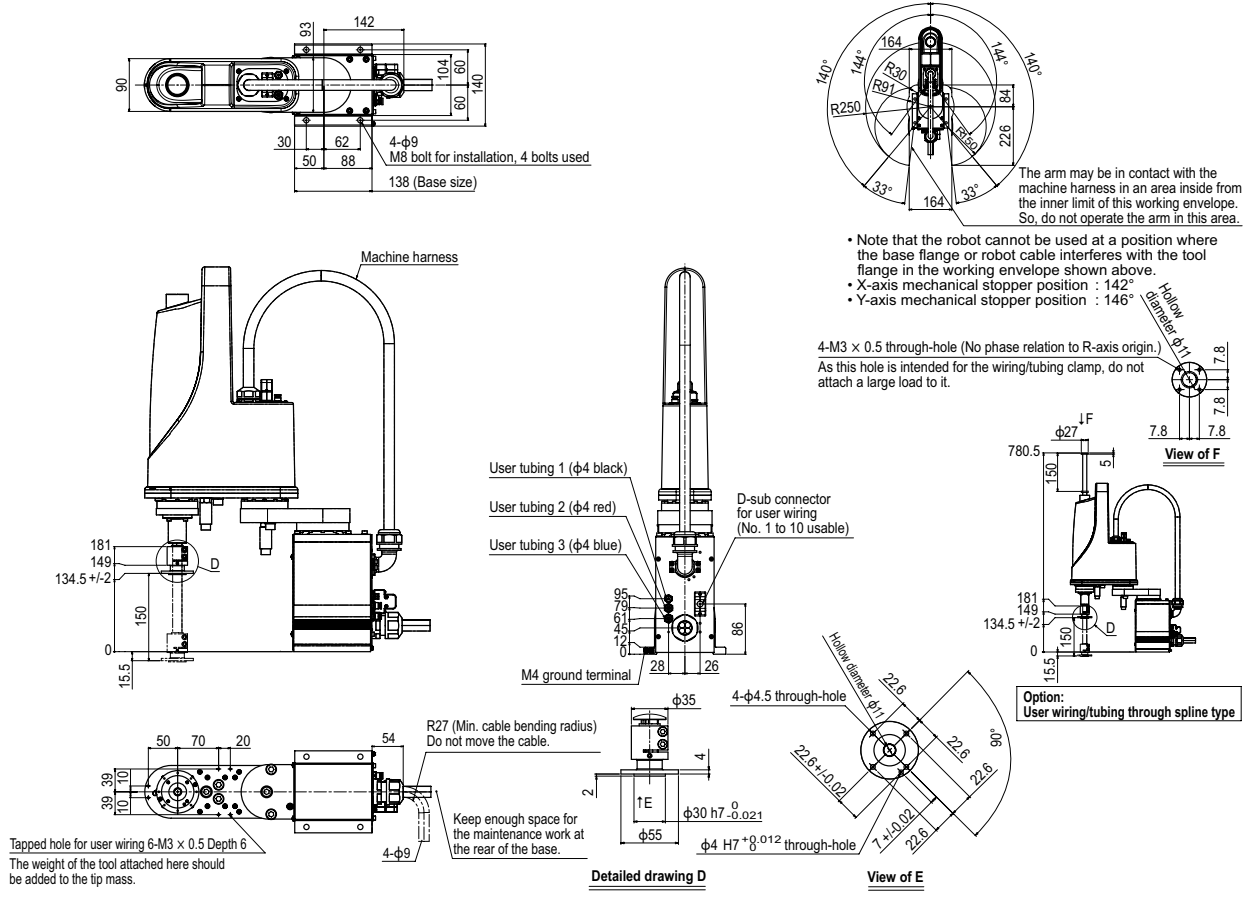
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YK250XG



- Articulated robots YA
- Linear conveyor modules LCM
- Single-axis robots CX
- Motor-less single axis actuator Robonity
- Compact single-axis robots TRANSEVO
- Single-axis robots FLIP-X
- Linear motor single-axis robots PHASER
- Cartesian robots XY-X
- SCARA robots YK-X
- Pick & place robots YP-X
- CLEAN
- CONTROLLER
- INFORMATION
- Oh!t/ Extra small type
- Small type
- Large type
- Inverse type
- Dust-proof & drip-proof type

YK250XG Tool flange mount type



YK350XG

Standard type: Small type

- Arm length 350mm
- Maximum payload 5kg

Ordering method

YK350XG - 150

Model	Z axis stroke 150: 150mm	Tool flange No entry: None F: With tool flange	Hollow shaft No entry: None S: With hollow shaft	Cable 3L: 3.5m 5L: 5m 10L: 10m
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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
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Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

	X-axis	Y-axis	Z-axis	R-axis
Axis specifications				
Arm length	200 mm	150 mm	150 mm	-
Rotation angle	+/-140 °	+/-144 °	-	+/-360 °
AC servo motor output	200 W	150 W	50 W	100 W
Deceleration mechanism	Direct-coupled			
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 ² (0.5 kgfcm ²)			
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.

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

Controller

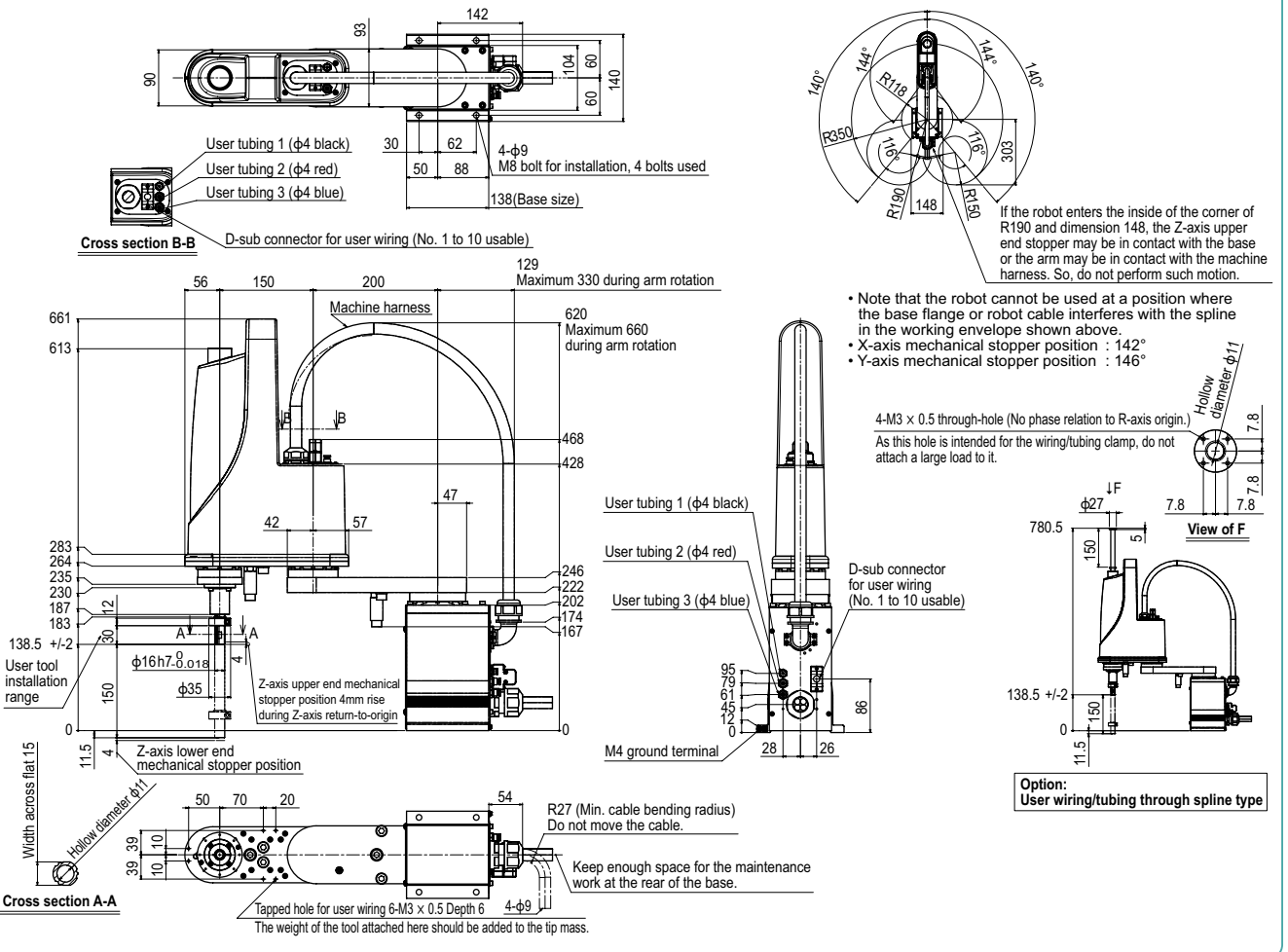
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

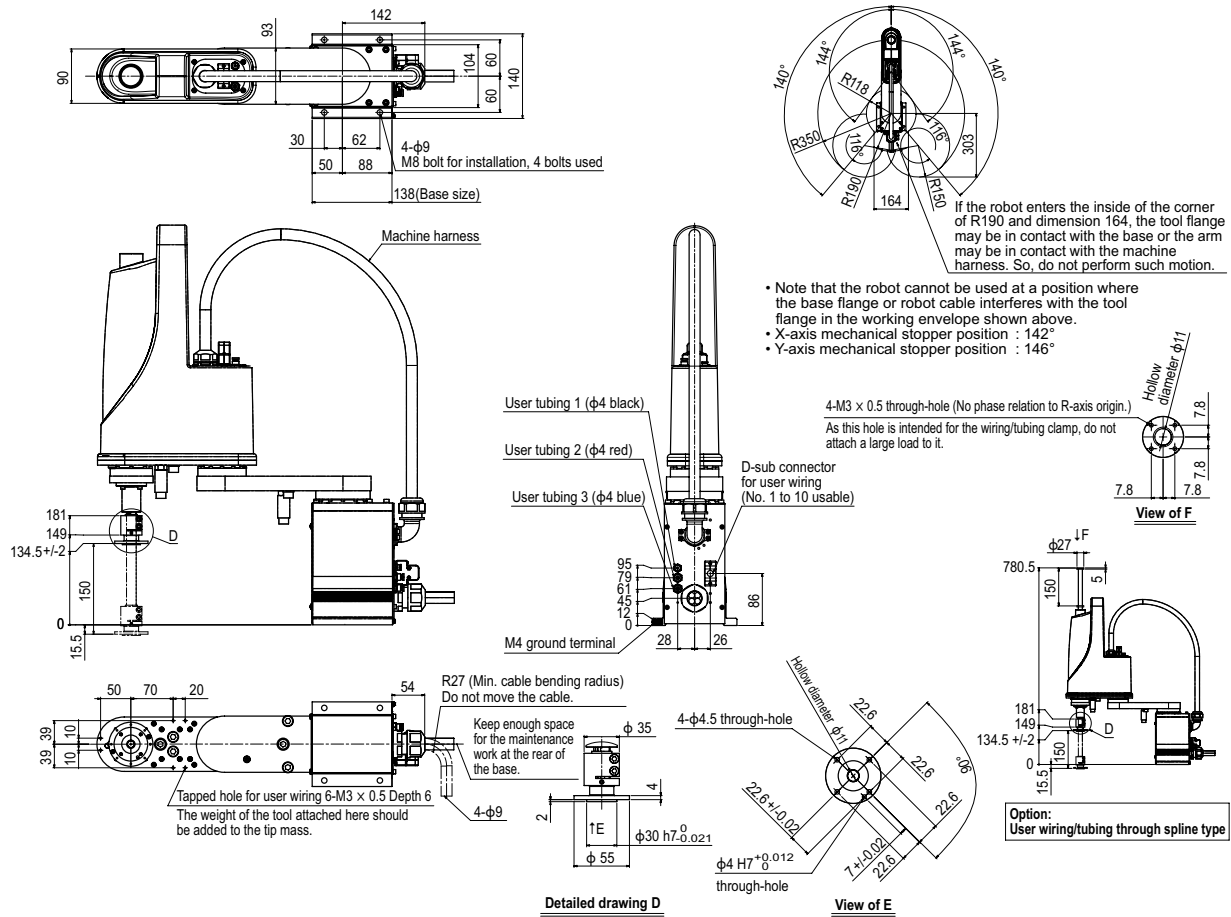
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
<https://global.yamaha-motor.com/business/robot/>

YK350XG



- Articulated robots YA
- Linear conveyor modules LCM
- Single-axis robots CX
- Motorless single axis actuator Robonity
- Compact single-axis robots TRANSERO
- Single-axis robots FLIP-X
- Linear motor single-axis robots PHASER
- Cartesian robots XY-X
- SCARA robots YK-X
- Pick & place robots YP-X
- CLEAN
- CONTROLLER INFORMATION
- Oh!h! Extra small type
- Small type
- Large type
- Wall mount / Inverse type
- Dust-proof & drip-proof

YK350XG Tool flange mount type



YK400XE-4

Standard type: Small type

LOW COST HIGH PERFORMANCE MODEL



- Arm length 400mm
- Maximum payload 4kg

Ordering method

YK400XE-4	150									RCX340-4					
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)	Absolute battery	Specify various controller setting items. RCX340 ▶ P.678				

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	225 mm	175 mm	150 mm	-
	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 Speed reducer to output	Direct-coupled		Timing belt	
Repeatability ^{Note 1}		+/-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 ^{Note 4}), 3 kg (Option specifications ^{Note 5})			
Standard cycle time: with 2kg payload ^{Note 2}		0.41 sec			
R-axis tolerable moment of inertia ^{Note 3}		0.05 kgm ²			
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

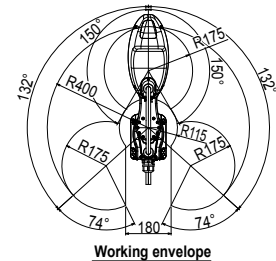
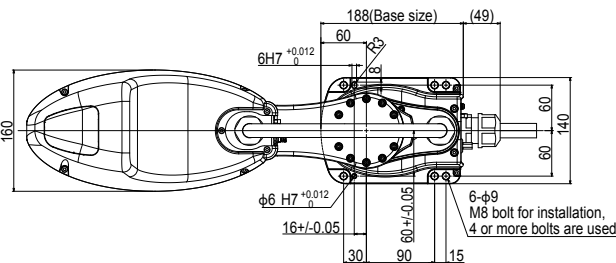
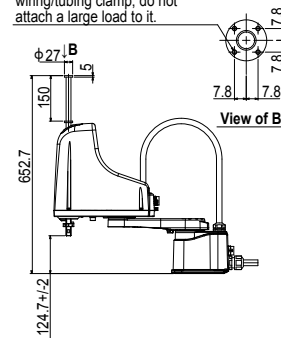
Note. The movement range can be restricted by adding the X- and Y-axis mechanical stoppers. (The maximum movement range was set at shipment.)
 See our robot manuals (installation manuals) for detailed information.

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.

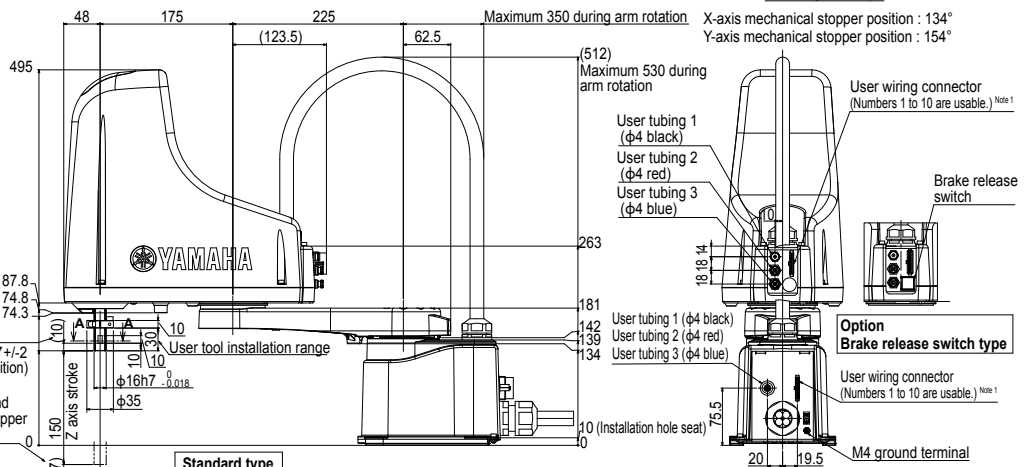
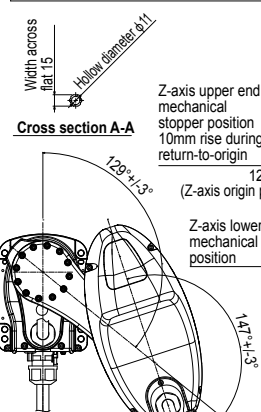
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YK400XE-4

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.



Option User wiring/tubing through shaft type

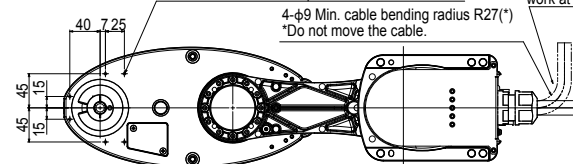


Standard type

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.

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

4-φ9 Min. cable bending radius R27(*)
 *Do not move the cable.



XY-axis origin position (Stroke end specification)

When performing return-to-origin, move the X-axis and Y-axis counterclockwise and clockwise, respectively in advance from the position shown above.

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.

YK400XG

Standard type: Small type

- Arm length 400mm
- Maximum payload 5kg

Ordering method

YK400XG - 150

RCX340-4

Model	Z axis stroke 150: 150mm	Tool flange No entry: None F: With tool flange	Hollow shaft No entry: None 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
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Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	250 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		6.1 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	0.45 sec			
R-axis tolerable moment of inertia	Note 3	0.05 kgm ² (0.5 kgfcm ²)			
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. (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

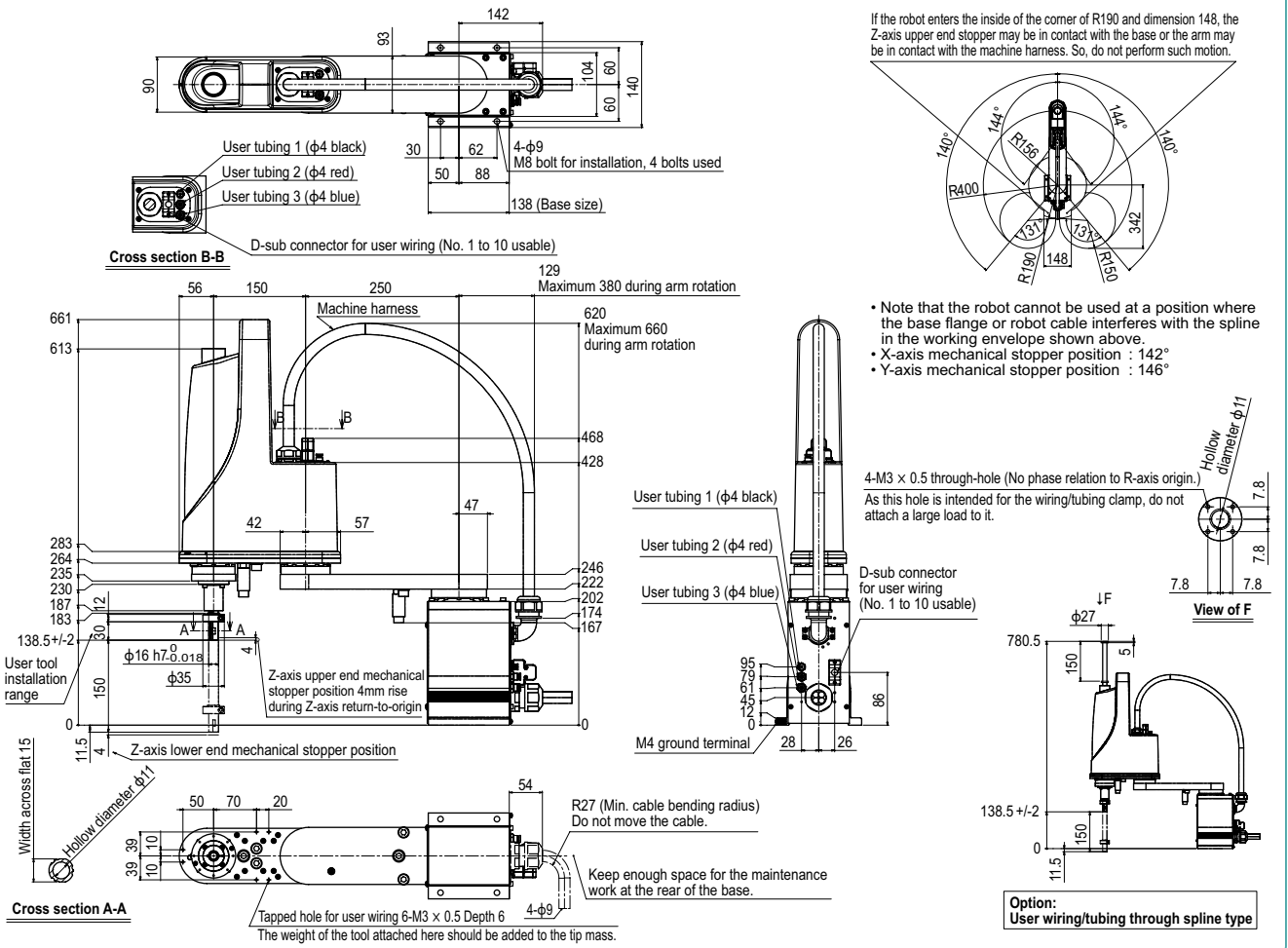
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

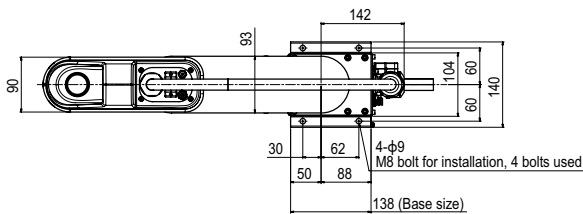
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YK400XG

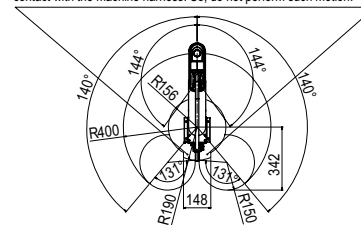


YA	Articulated robots
LCM	Linear conveyor modules
CX	Single-axis robots
Robonity	Motor-less single axis actuator
TRANSEVO	Compact single-axis robots
FLIP-X	Single-axis robots
PHASER	Linear motor single-axis robots
XY-X	Cartesian robots
YK-X	SCARA robots
YP-X	Pick & place robots
CLEAN	CLEAN robots
CONTROLLER	CONTROLLER
INFORMATION	INFORMATION
Orbit/Extra small type	Orbit/Extra small type
Small type	Small type
Large type	Large type
Wall mount/Inverse type	Wall mount/Inverse type
Dust-proof & drip-proof type	Dust-proof & drip-proof type

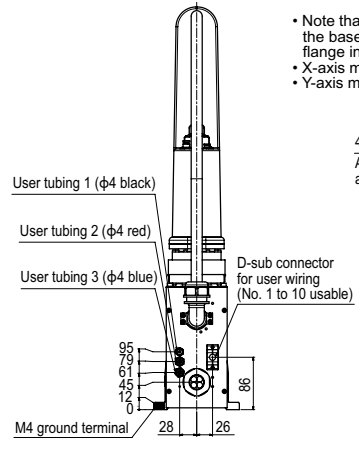
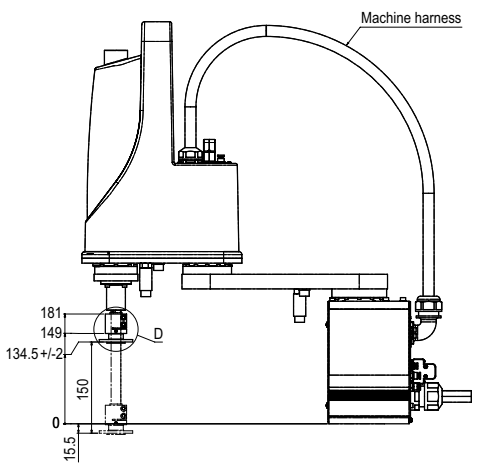
YK400XG Tool flange mount type



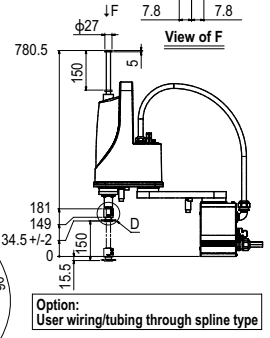
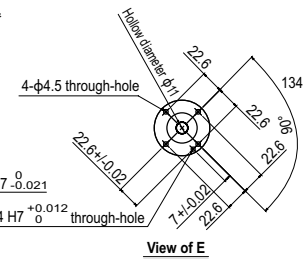
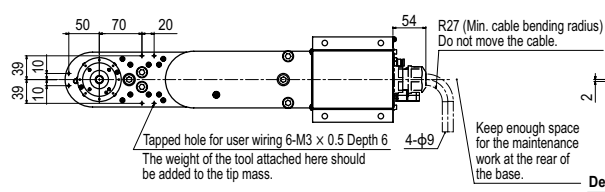
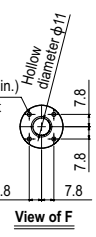
If the robot enters the inside of the corner of R190 and dimension 148, the tool flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.



- Note that the robot cannot be used at a position where the base flange or robot cable interferes with the tool flange in the working envelope shown above.
- X-axis mechanical stopper position : 142°
- Y-axis mechanical stopper position : 146°



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.



YK500XGL

Standard type: Medium type



- Arm length 500mm
- Maximum payload 5kg

Ordering method

YK500XGL - 150

RCX340-4

Model	Z axis stroke 150: 150mm	Tool flange No entry: None F: With tool flange	Hollow shaft No entry: None 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
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Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
Rotation angle		250 mm	250 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		5.1 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	0.48 sec			
R-axis tolerable moment of inertia	Note 3	0.05 kgm ² (0.5 kgfcm ²)			
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		21 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.

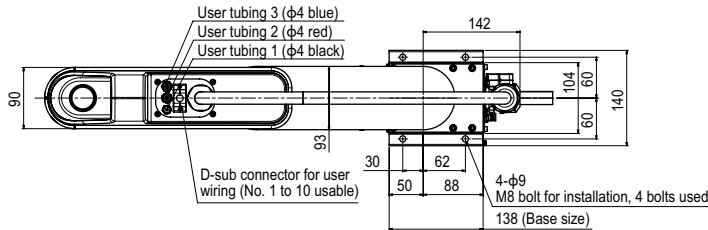
Controller

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

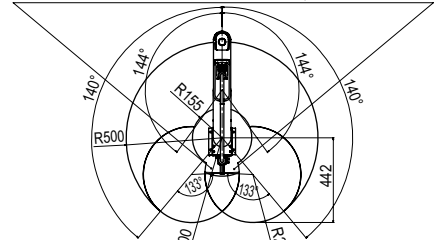
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
 See our robot manuals (installation manuals) for detailed information.
 Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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YK500XGL

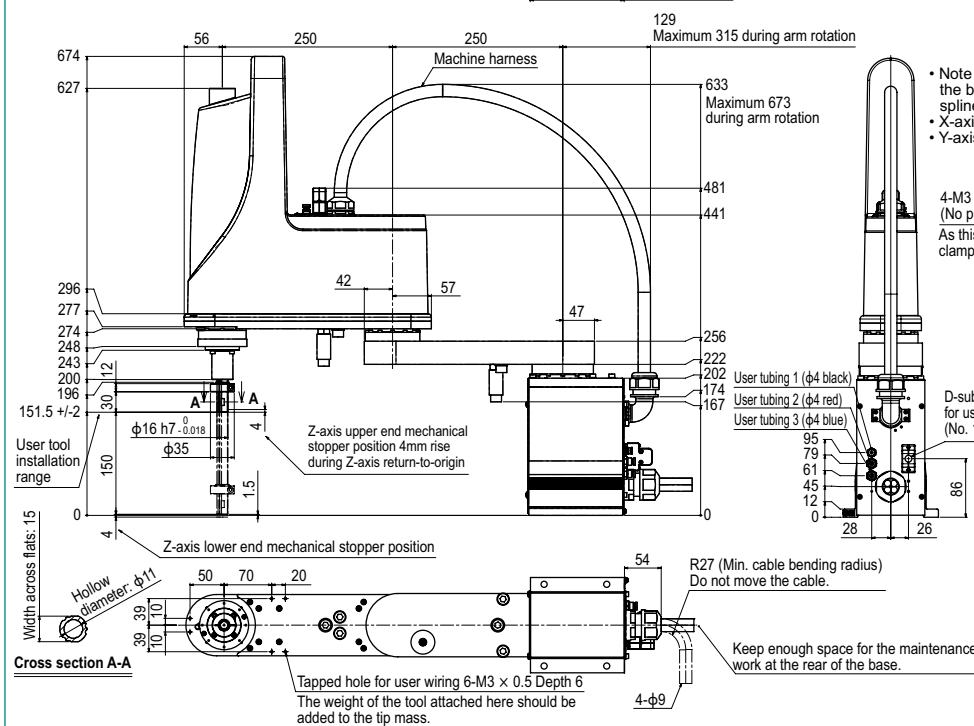
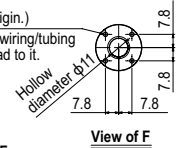


If the robot enters the inside of the corner of R200 and R250, the arm may be in contact with the machine harness. So, do not perform such motion.



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

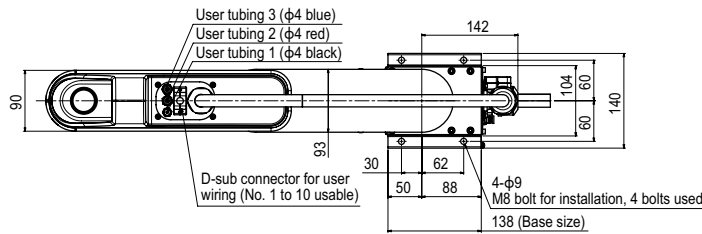
4-M3 × 0.5 through-hole (No phase relation to R-axis origin.)
 As this hole is intended for the wiring/tubing clamp, do not attach a large load to it.



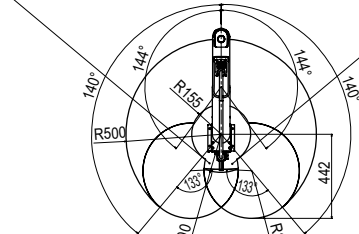
Option:
 User wiring/tubing through spline type

YA	Articulated robots
LCM	Linear conveyor modules
CX	Single-axis robots
Robonity	Motor-less single axis actuator
TRANSERO	Compact single-axis robots
FLIP-X	Single-axis robots
PHASER	Linear motor single-axis robots
XY-X	Cartesian robots
YK-X	SCARA robots
YP-X	Pick & place robots
CLEAN	CLEAN
CONTROLLER	CONTROLLER
INFORMATION	INFORMATION
Oh!v/Extra small type	Oh!v/Extra small type
Medium type	Medium type
Large type	Large type
Wall mount/Inverse type	Wall mount/Inverse type
Dust-proof & drip-proof type	Dust-proof & drip-proof type

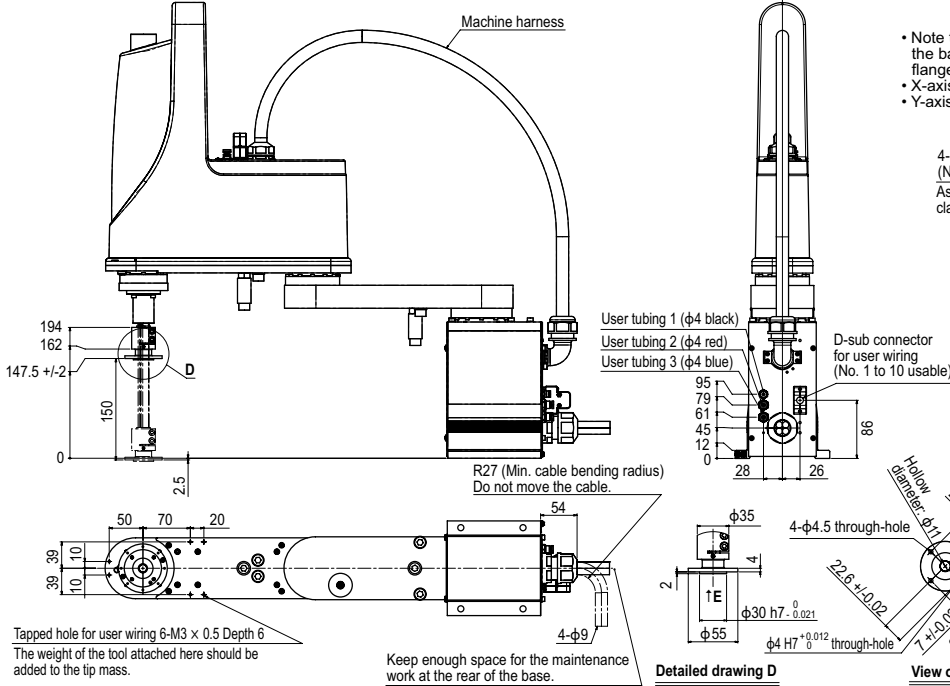
YK500XGL Tool flange mount type



If the robot enters the inside of corners of R200 and R250, 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 or robot cable interferes with the tool flange in the working envelope shown above.
- X-axis mechanical stopper position : 142°
- Y-axis mechanical stopper position : 146°



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.

YK500XG

Standard type: Medium type



- Arm length 500mm
- Maximum payload 10kg

Ordering method

YK500XG				RCX340-4							
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.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	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			
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 ²			
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.

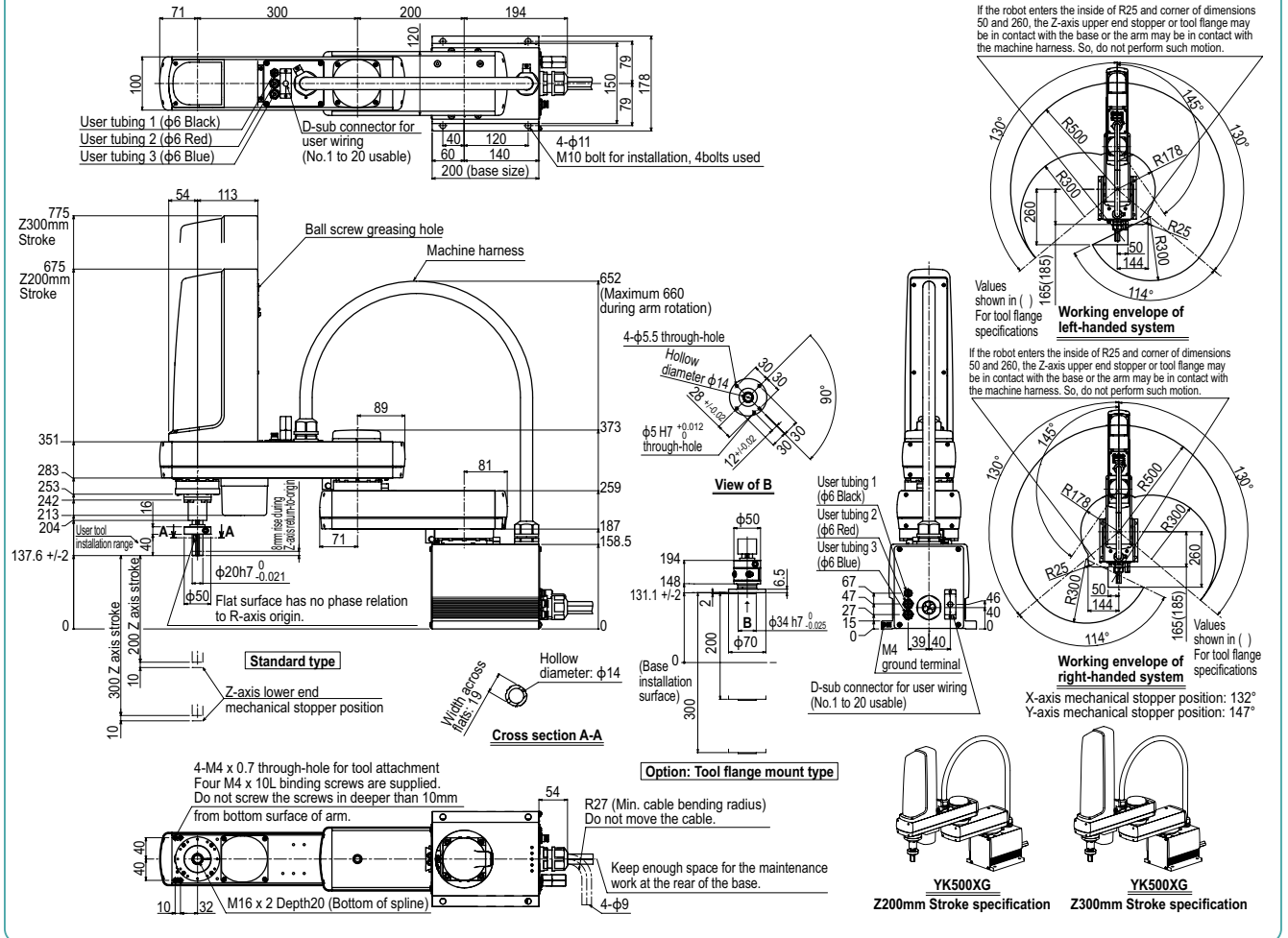
Controller

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.

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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 ^{Note}	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.678**

Note. The return-to-origin method is provided only in the sensor specifications, but not in the stroke end specifications.

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	235 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	Direct-coupled		Timing belt	
	Motor to speed reducer 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 ²			
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.

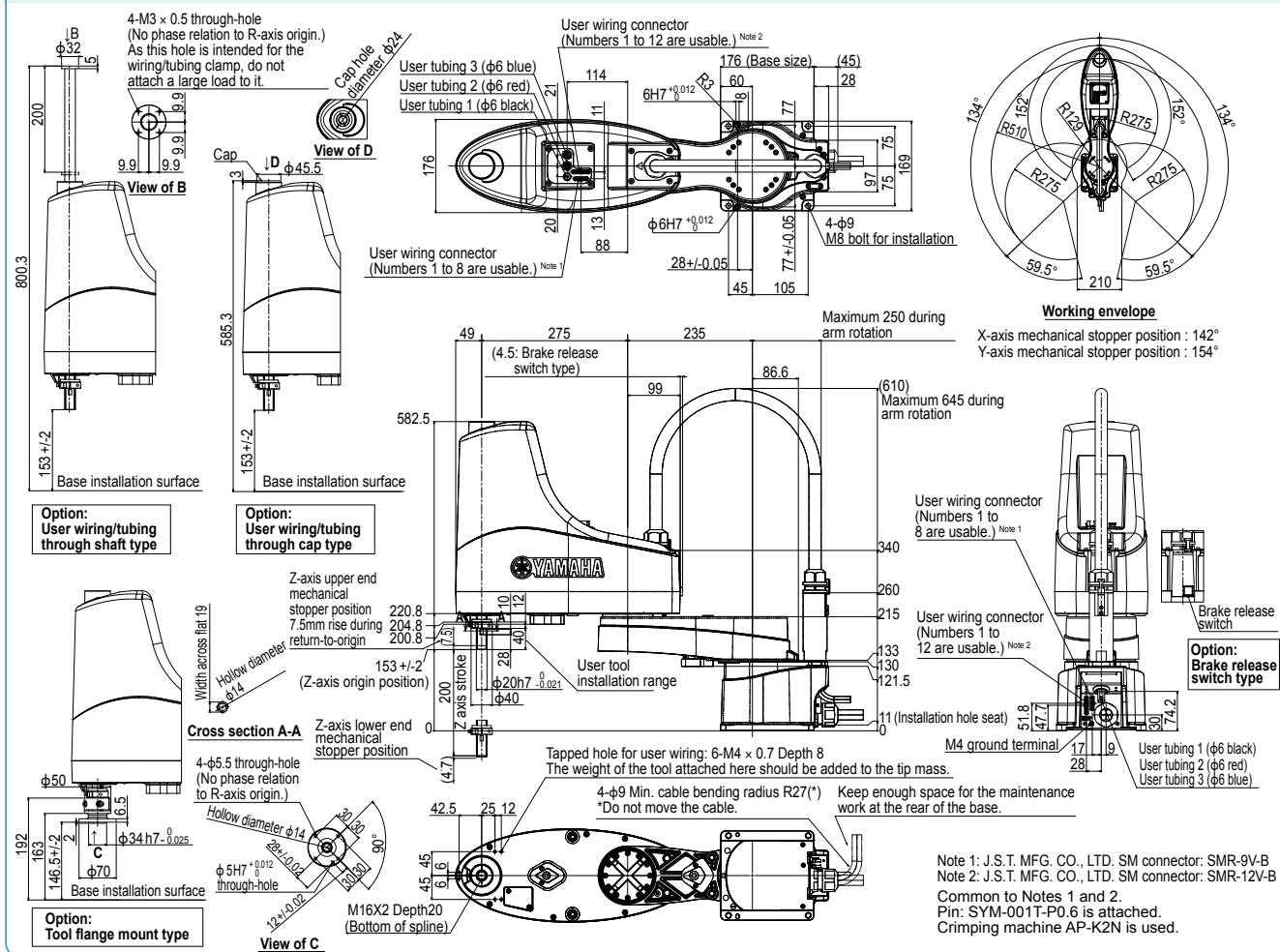
Controller

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.

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YK510XE-10



Note 1: J.S.T. MFG. CO., LTD. SM connector: SMR-9V-B
 Note 2: J.S.T. MFG. CO., LTD. SM connector: SMR-12V-B
 Common to Notes 1 and 2.
 Pin: SYM-001T-P0.6 is attached.
 Crimping machine AP-K2N is used.

YK600XGL

Standard type: Medium type



- Arm length 600mm
- Maximum payload 5kg

Ordering method

YK600XGL - 150

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	No entry: None S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
Rotation angle		350 mm	250 mm	150 mm	-
AC servo motor output		+/-140 °	+/-144 °	-	+/-360 °
Deceleration mechanism	Transmission method	200 W	150 W	50 W	100 W
	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		4.9 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	0.54 sec			
R-axis tolerable moment of inertia	Note 3	0.05 kgm ² (0.5 kgfcm ²)			
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		22 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

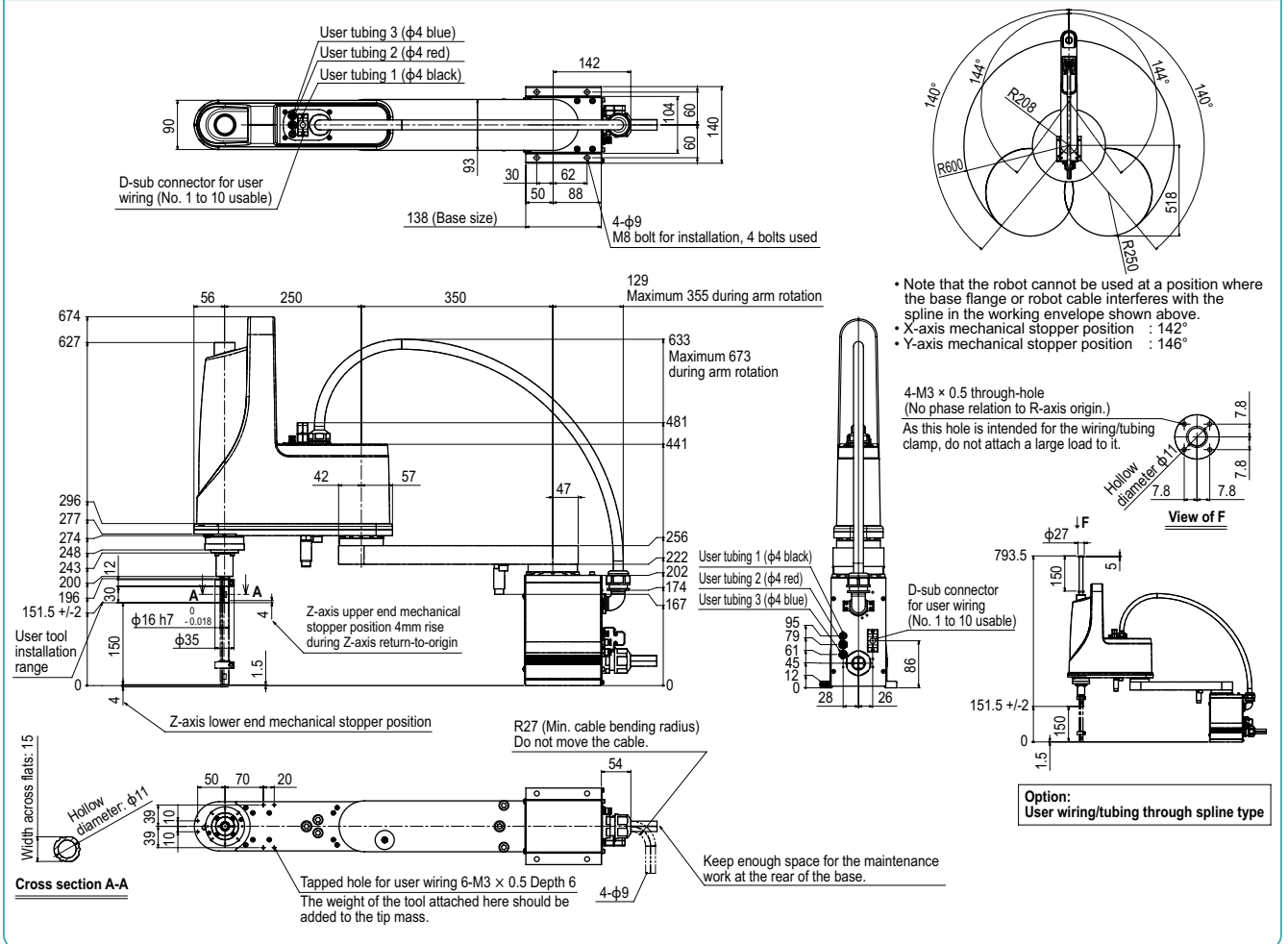
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

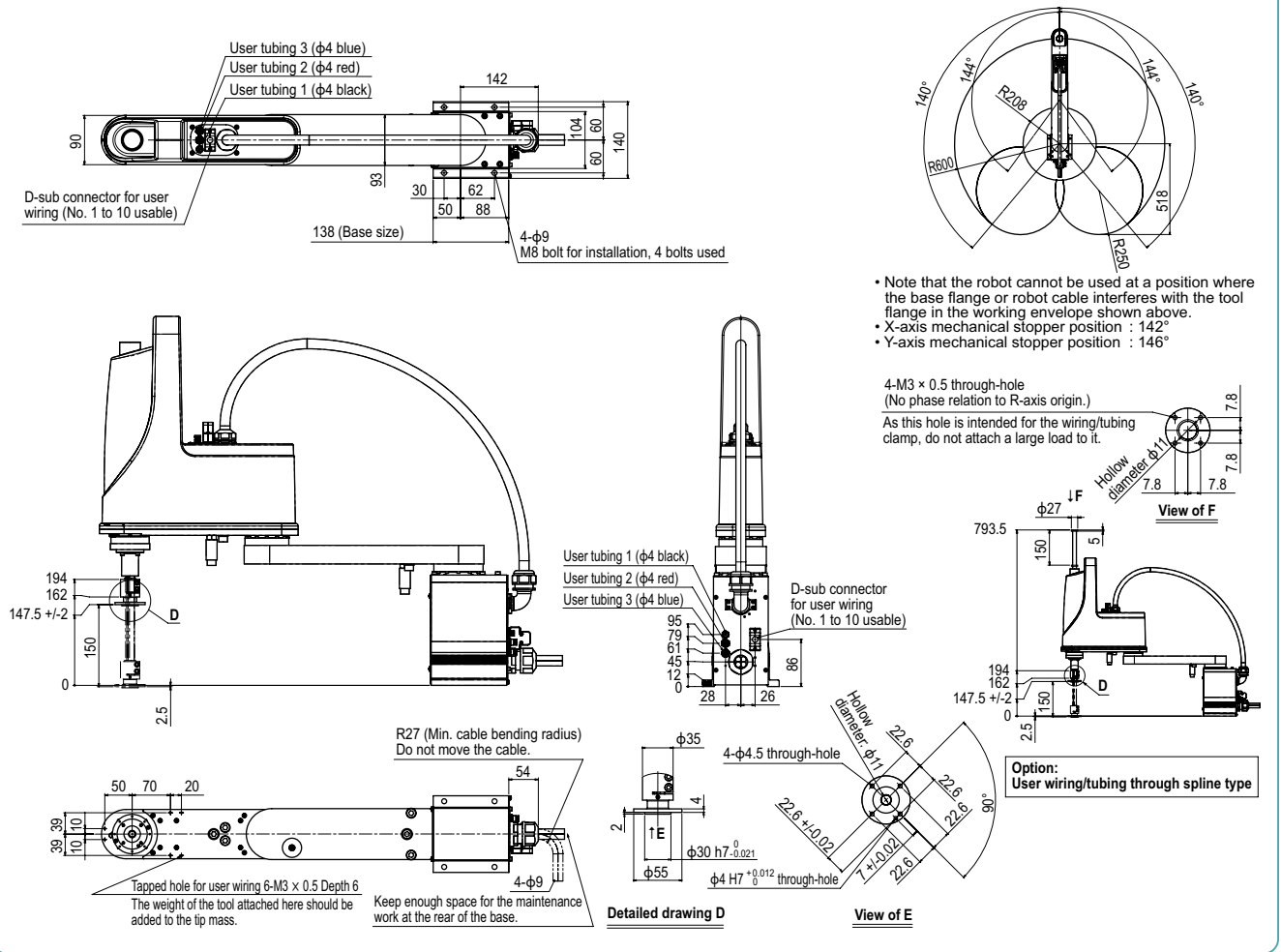
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
<https://global.yamaha-motor.com/business/robot/>

YK600XGL



YA	Articulated robots
LCM	Linear conveyor modules
CX	Single-axis robots
Robonity	Motor-less single axis actuator
TRANSERO	Compact single-axis robots
FLIP-X	Single-axis robots
PHASER	Linear motor single-axis robots
XY-X	Cartesian robots
YK-X	SCARA robots
YP-X	Pick & place robots
CLEAN	CLEAN
CONTROLLER	CONTROLLER
INFORMATION	INFORMATION
Orbit/Extra small type	Orbit/Extra small type
Medium type	Medium type
Large type	Large type
Wall mount/Inverse type	Wall mount/Inverse type
Dust-proof & drip-proof type	Dust-proof & drip-proof type

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 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.678**

Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	300 mm	300 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	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 ²			
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.

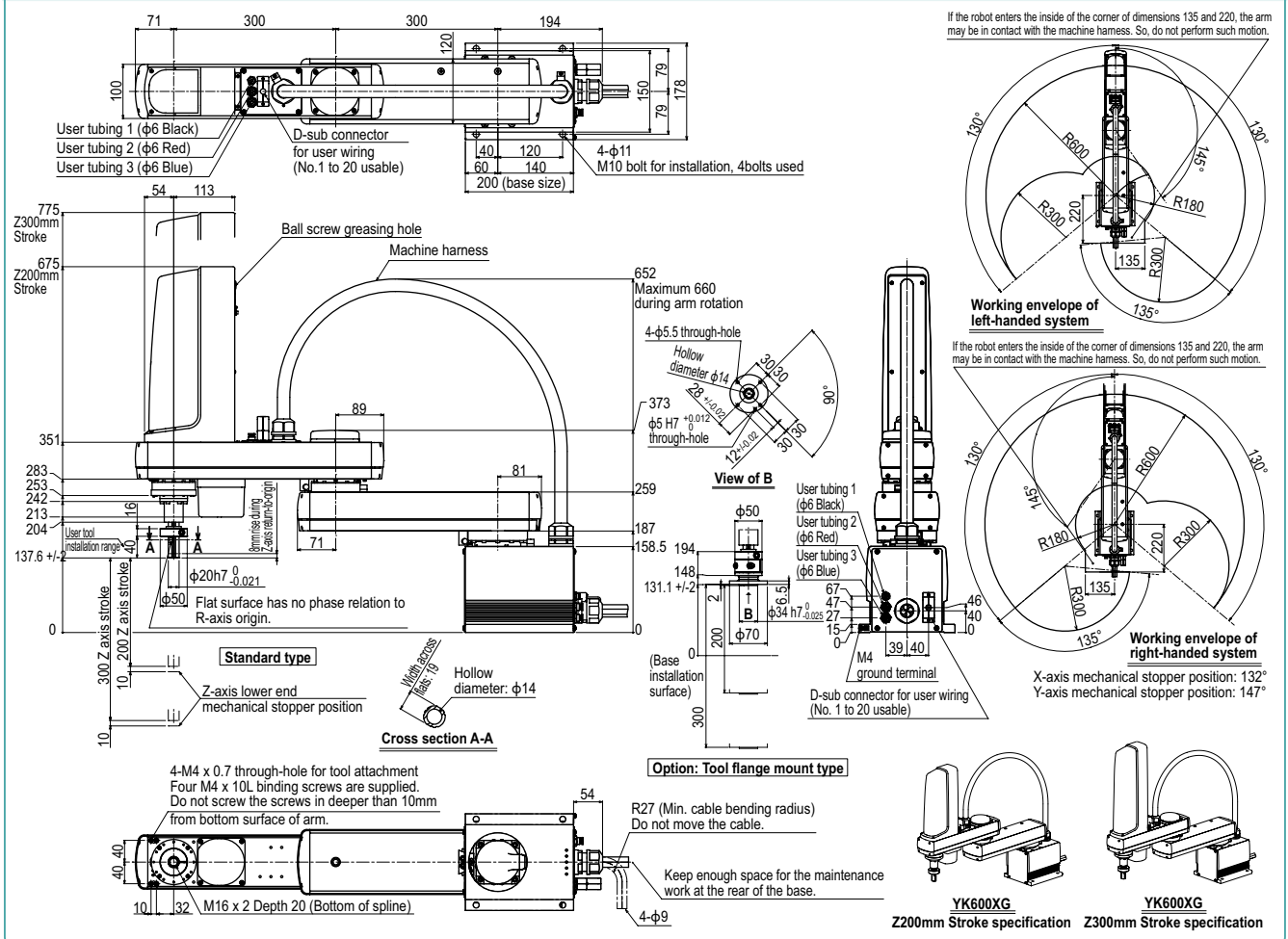
Controller

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:
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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 ^{Note}	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.678**

Note. The return-to-origin method is provided only in the sensor specifications, but not in the stroke end specifications.

Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
Rotation angle		335 mm	275 mm	200 mm	-
AC servo motor output		+/-134 °	+/-152 °	-	+/-360 °
Deceleration mechanism	Transmission method	400 W	200 W	200 W	200 W
Motor to speed reducer	Speed reducer to output	Direct-coupled		Timing belt	
Repeatability ^{Note 1}		Direct-coupled		Timing belt	
Maximum speed		+/-0.01 mm	+/-0.01 mm	+/-0.01 °	
Maximum payload		8.6 m/sec		2 m/sec	
Standard cycle time: with 2kg payload ^{Note 2}		10 kg (Standard specification, Option specifications ^{Note 4}), 9 kg (Option specifications ^{Note 5})		2600 °/sec	
R-axis tolerable moment of inertia ^{Note 3}		0.39 sec		10 kg ²	
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

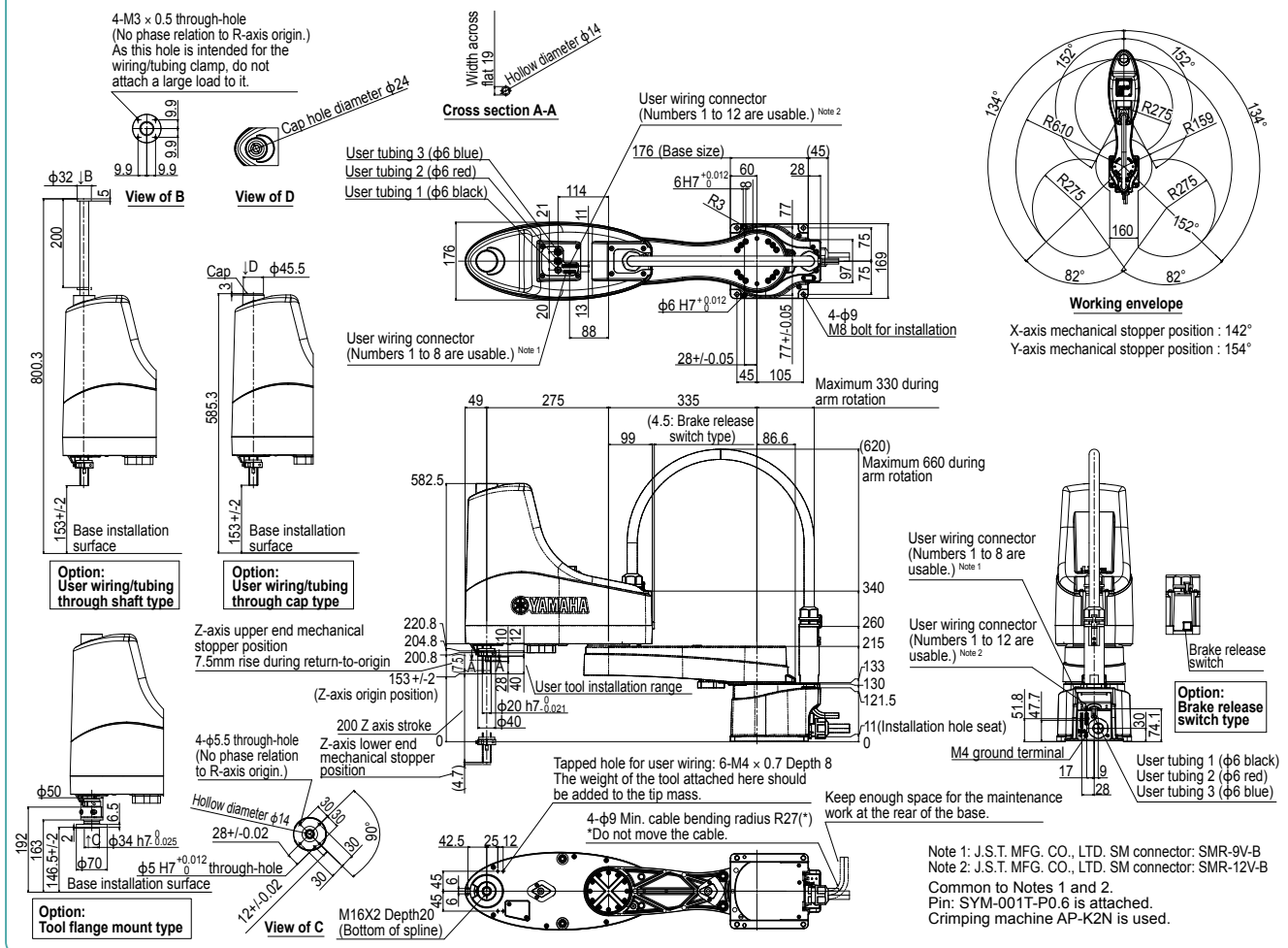
Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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/>

YK610XE-10



YK600XGH

Standard type: Medium type



- Arm length 600mm
- Maximum payload 20kg

Ordering method

YK600XGH				RCX340-4							
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.678**

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	Direct-coupled			
	Motor to speed reducer Speed reducer to output	Direct-coupled			
Repeatability <small>Note 1</small>		+/-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 <small>Note 2</small>		0.47 sec			
R-axis tolerable moment of inertia <small>Note 3</small>		1.0 kgm ²			
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.

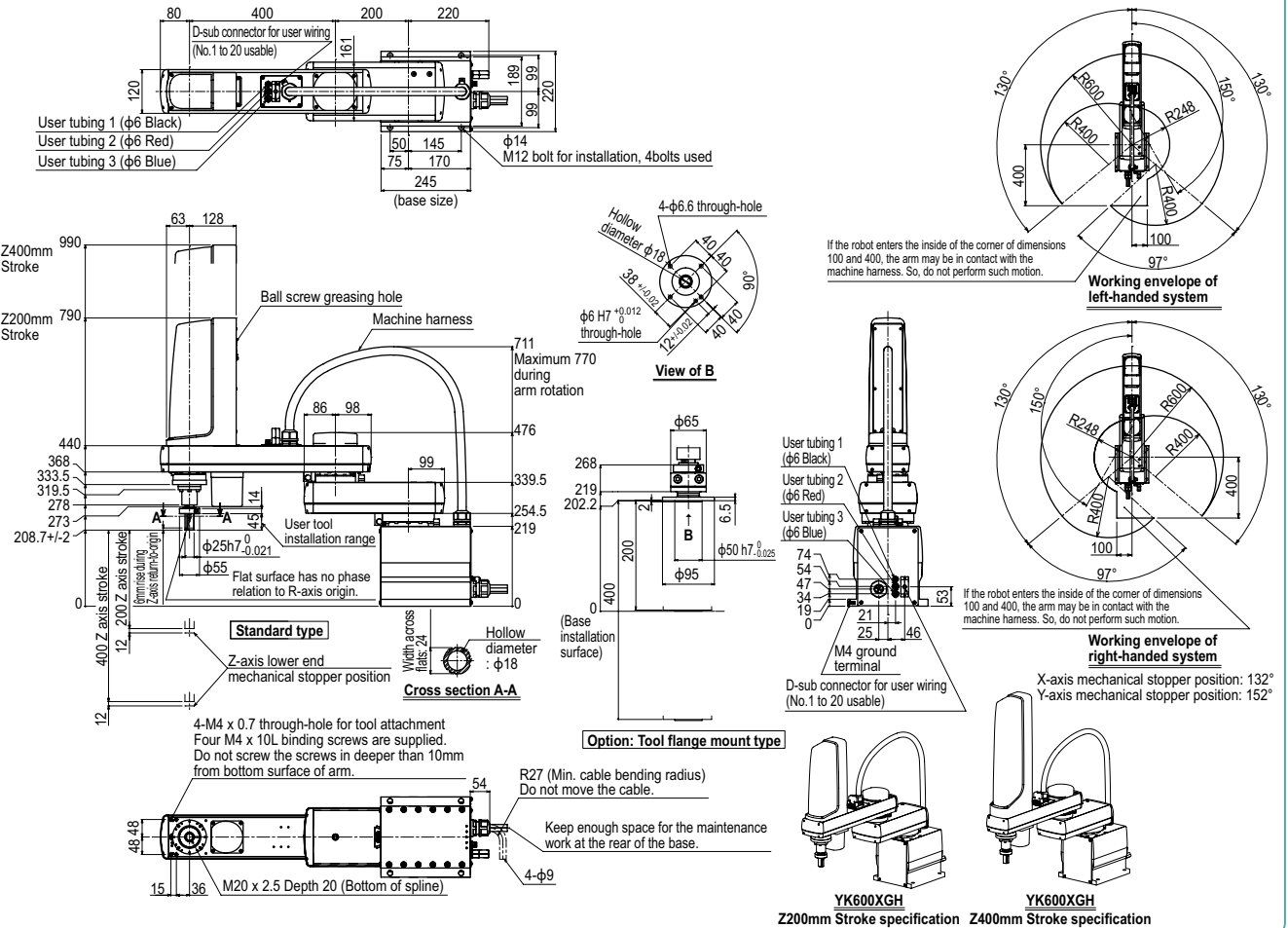
Controller

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

YK700XGL **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	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	400 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 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 ²			
User wiring		0.2 sq × 20 wires			
User tubing (Outer diameter)		φ6 × 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

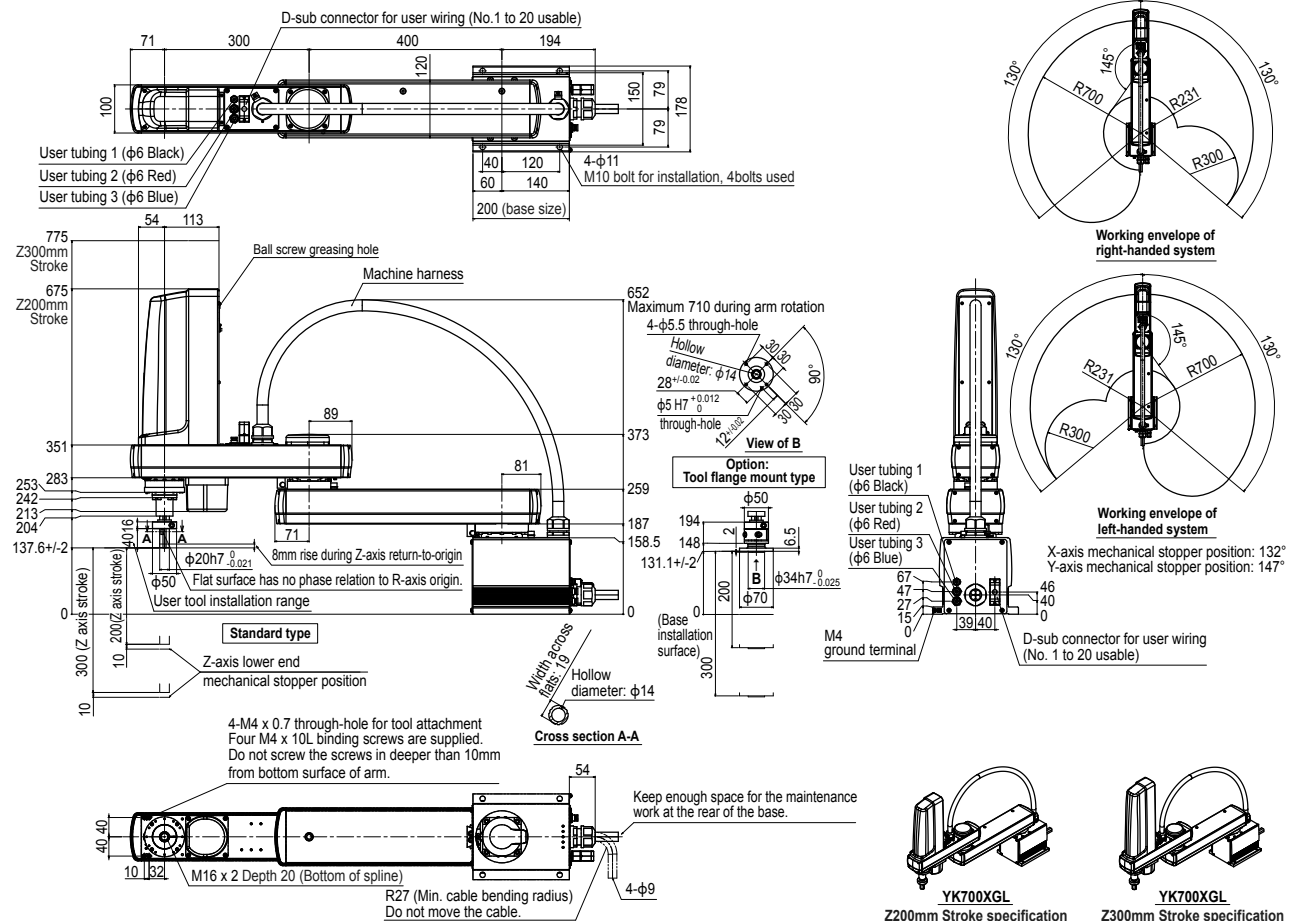
Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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



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 ^{Note}	Brake release switch	Cable
			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

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

Specify various controller setting items.
RCX340 ▶ P.678

Note. The return-to-origin method is provided only in the sensor specifications, but not in the stroke end specifications.

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	Direct-coupled		Timing belt	
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}	+/-0.02 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 ^{Note 4}), 9 kg (Option specifications ^{Note 5})			
Standard cycle time: with 2kg payload ^{Note 2}	0.42 sec			
R-axis tolerable moment of inertia ^{Note 3}	0.3 kgm ²			
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.

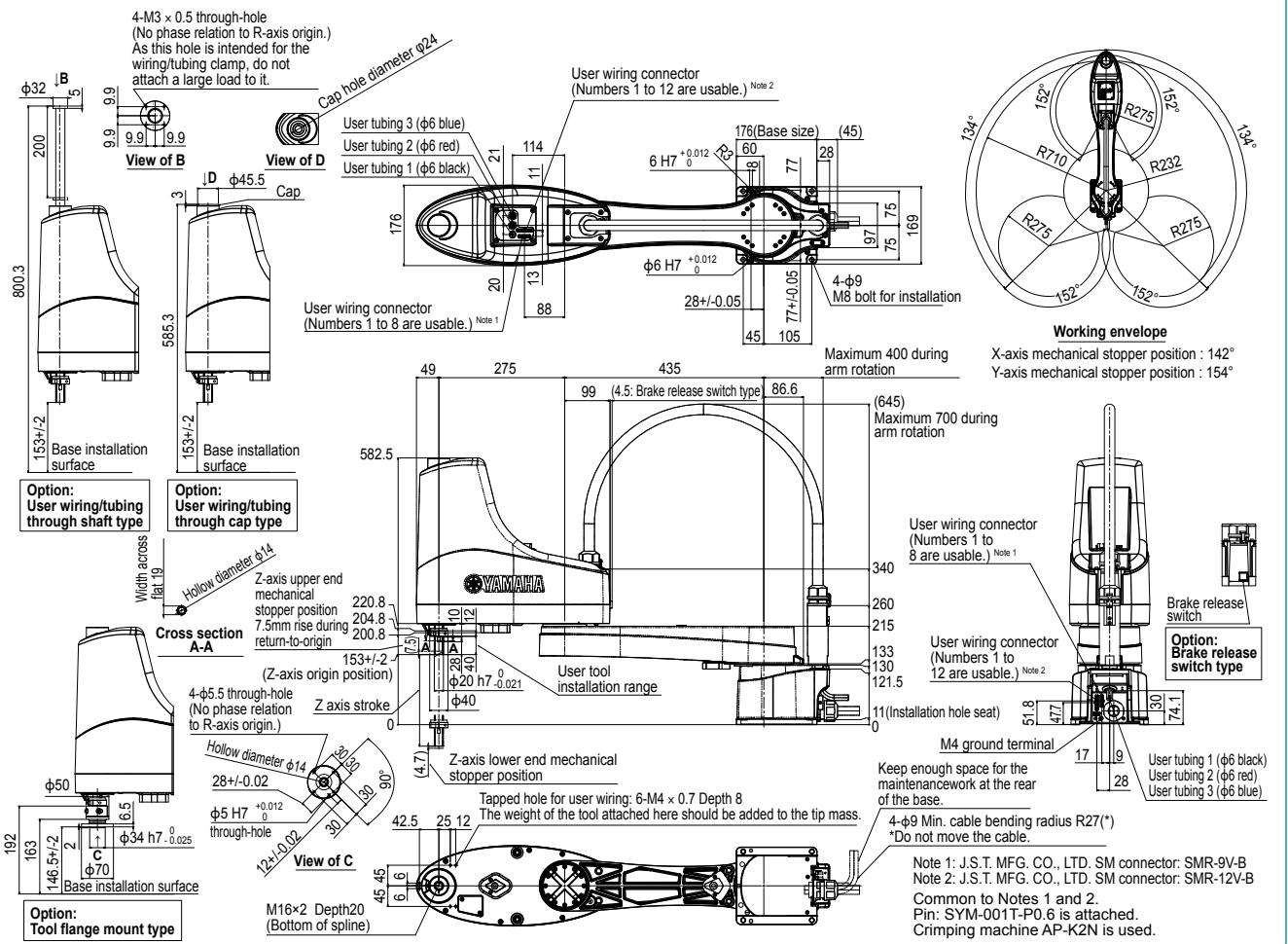
Controller

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 **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 400: 400mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	300 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 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 ²			
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.

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YK700XG

Working envelope of left-handed system

Working envelope of right-handed system

Option: Tool flange mount type

YK700XG Z200mm Stroke specification

YK700XG Z400mm Stroke specification

YK800XG

Standard type: Large type



- Arm length 800mm
- Maximum payload 20kg

Ordering method

YK800XG				RCX340-4								
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 (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	

Specify various controller setting items. RCX340 ▶ **P.678**

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 °	-	+/-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		9.2 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}		0.48 sec			
R-axis tolerable moment of inertia ^{Note 3}		1.0 kgm ²			
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: 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.

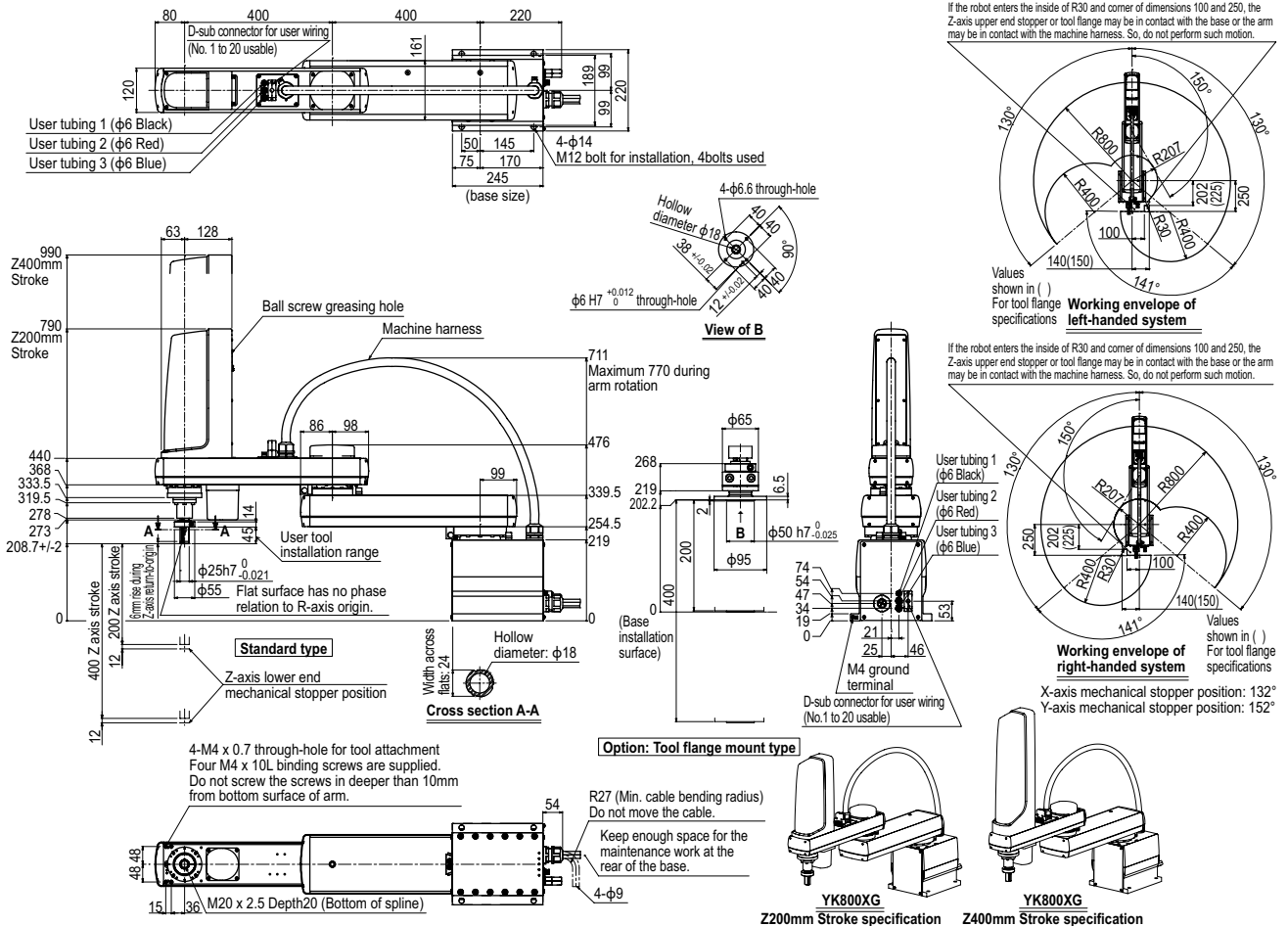
Controller

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 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.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	500 mm	400 mm	200 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 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 ²			
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.

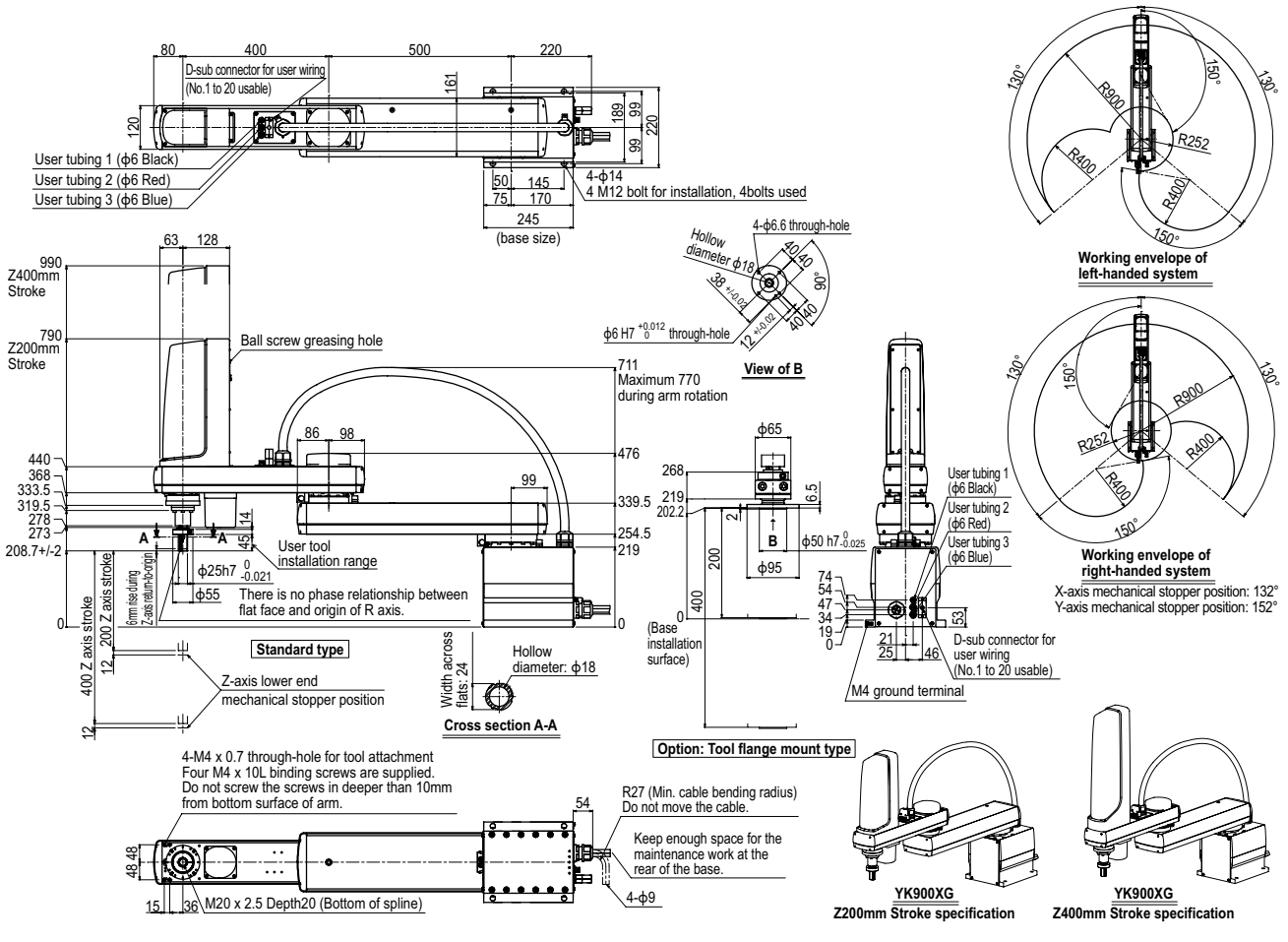
Controller

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.

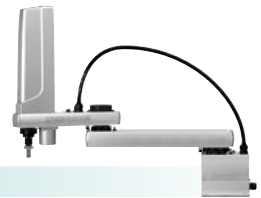
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
<https://global.yamaha-motor.com/business/robot/>

YK900XG



YK1000XG

Standard type: Large type



- Arm length 1000mm
- Maximum payload 20kg

Ordering method

YK1000XG				RCX340-4							
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 (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

Specify various controller setting items. RCX340 ▶ **P.678**

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	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
Repeatability ^{Note 1}	Speed reducer to output	Direct-coupled			
		+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed		10.6 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 ²			
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 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.

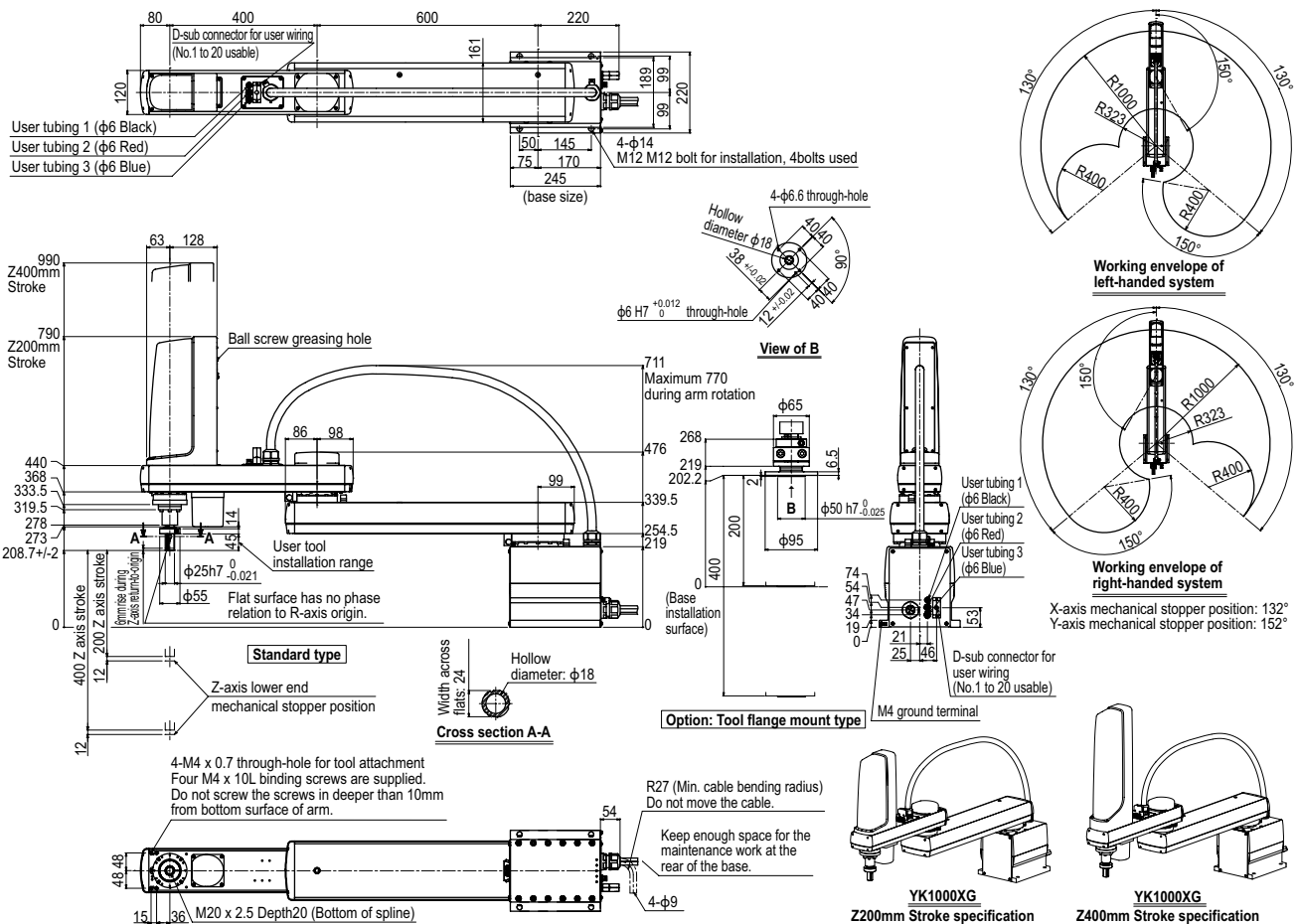
Controller

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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YK1000XG



YK1200X

Standard type: Large type

- Arm length 1200mm
- Maximum payload 50kg



Ordering method

YK1200X - 400

Z axis stroke

RCX340-4

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

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
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Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	600 mm	600 mm	400 mm	-
	Rotation angle	+/-125 °	+/-150 °	-	+/-180 °
AC servo motor output		900 W	800 W	600 W	400 W
Deceleration mechanism	Transmission method	Direct-coupled		Timing belt transmission	Timing belt transmission
	Motor to speed reducer Speed reducer to output	Direct-coupled		Direct-coupled	Direct-coupled
Repeatability ^{Note 1}		+/-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 ^{Note 2}		0.91 sec			
R-axis tolerable moment of inertia ^{Note 3}		2.45 kgm ²			
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.

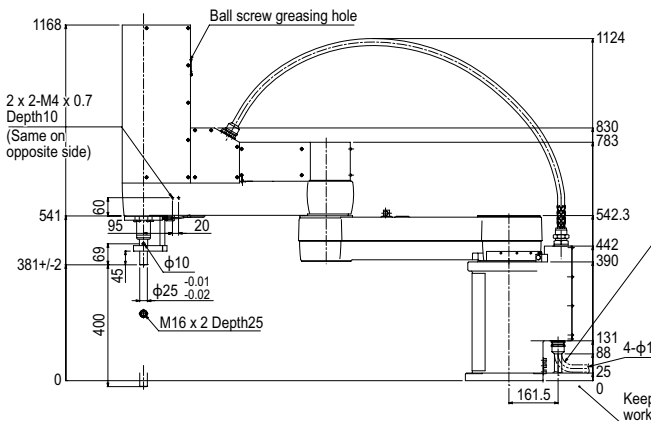
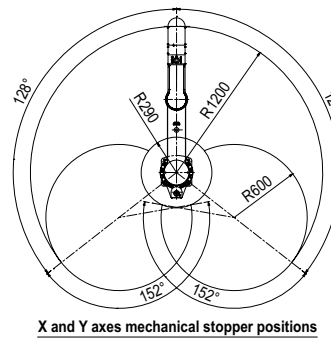
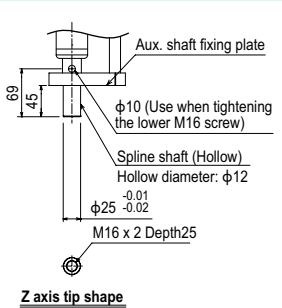
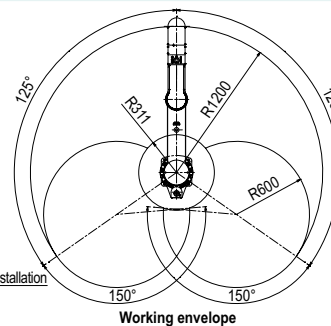
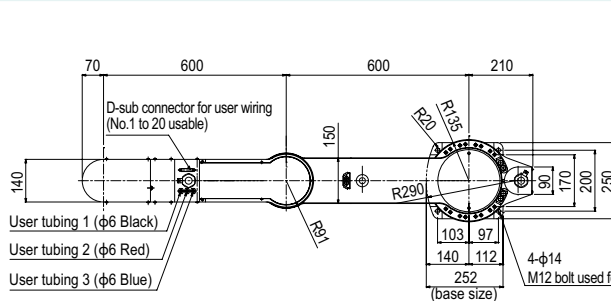
Controller

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:
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YK1200X



- Articulated robots YA
- Linear conveyor modules LCM
- Single-axis robots CX
- Motor-less single-axis actuator Robomity
- Compact single-axis robots TRANSEVO
- Single-axis robots FLIP-X
- Linear motor single-axis robots PHASER
- Cartesian robots XY-X
- SCARA robots YK-X
- Pick & place robots YP-X
- CLEAN CONTROLLER INFORMATION
- Ortho/Extra small type
- Small / Medium type
- Large type
- Wall mount / Inverse type
- Dust-proof & drip-proof type

YK300XGS

Wall mount / inverse type

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

Ordering method

YK300XGS	150					RCX340-4									
Model	Installation method ^{Note 1}	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		
	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									Specify various controller setting items. RCX340 ▶ P.678	

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		150 mm	150 mm	150 mm	-
AC servo motor output		+/-120 °	+/-130 °	-	+/-360 °
Deceleration mechanism	Transmission method	200 W	150 W	50 W	100 W
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability ^{Note 1}		+/-0.01 mm	+/-0.01 mm	+/-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) ^{Note 4}			
Standard cycle time: with 2kg payload ^{Note 2}		0.49 sec			
R-axis tolerable moment of inertia ^{Note 3}		0.05 kgm ²			
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.

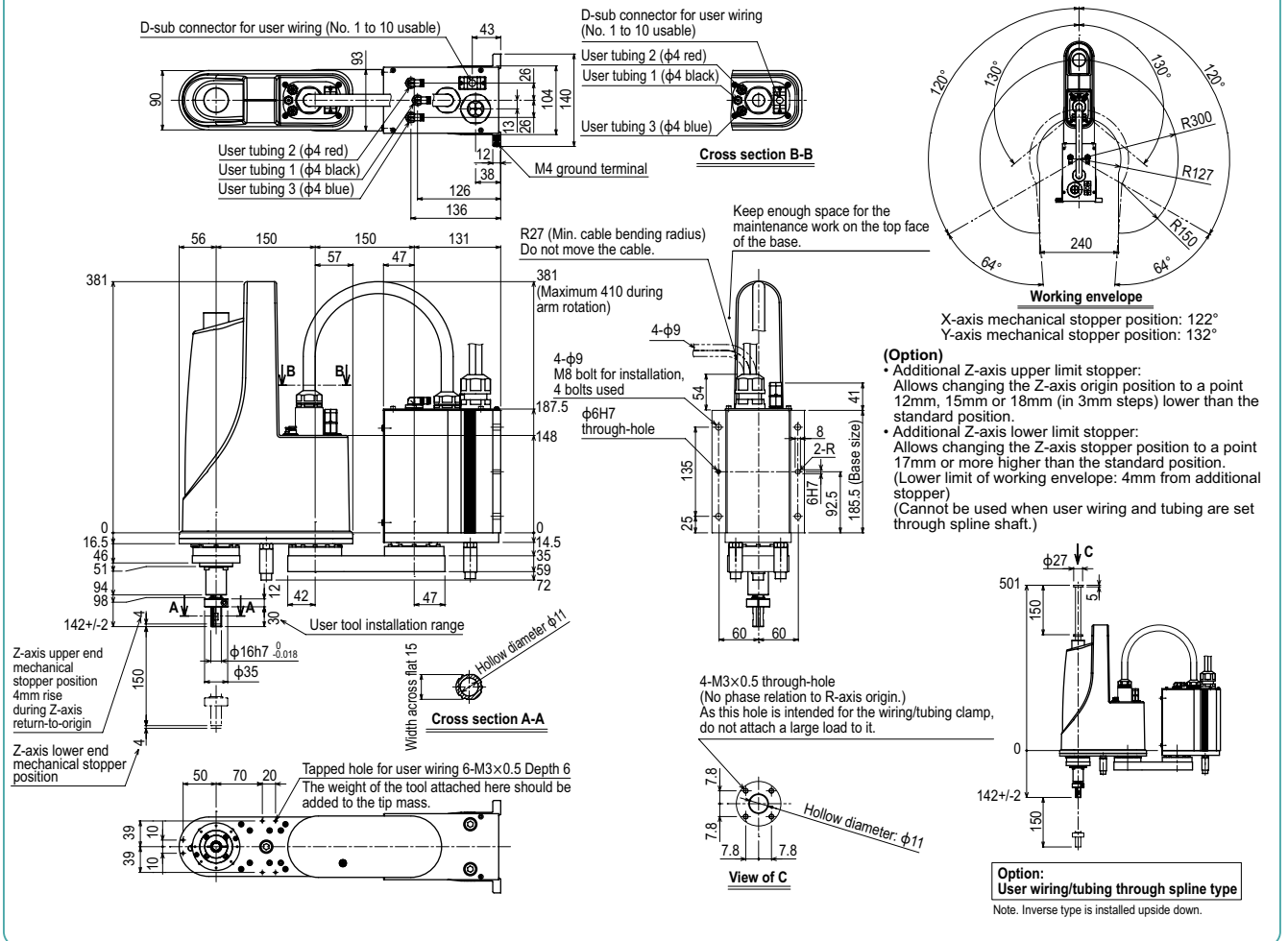
Controller

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.

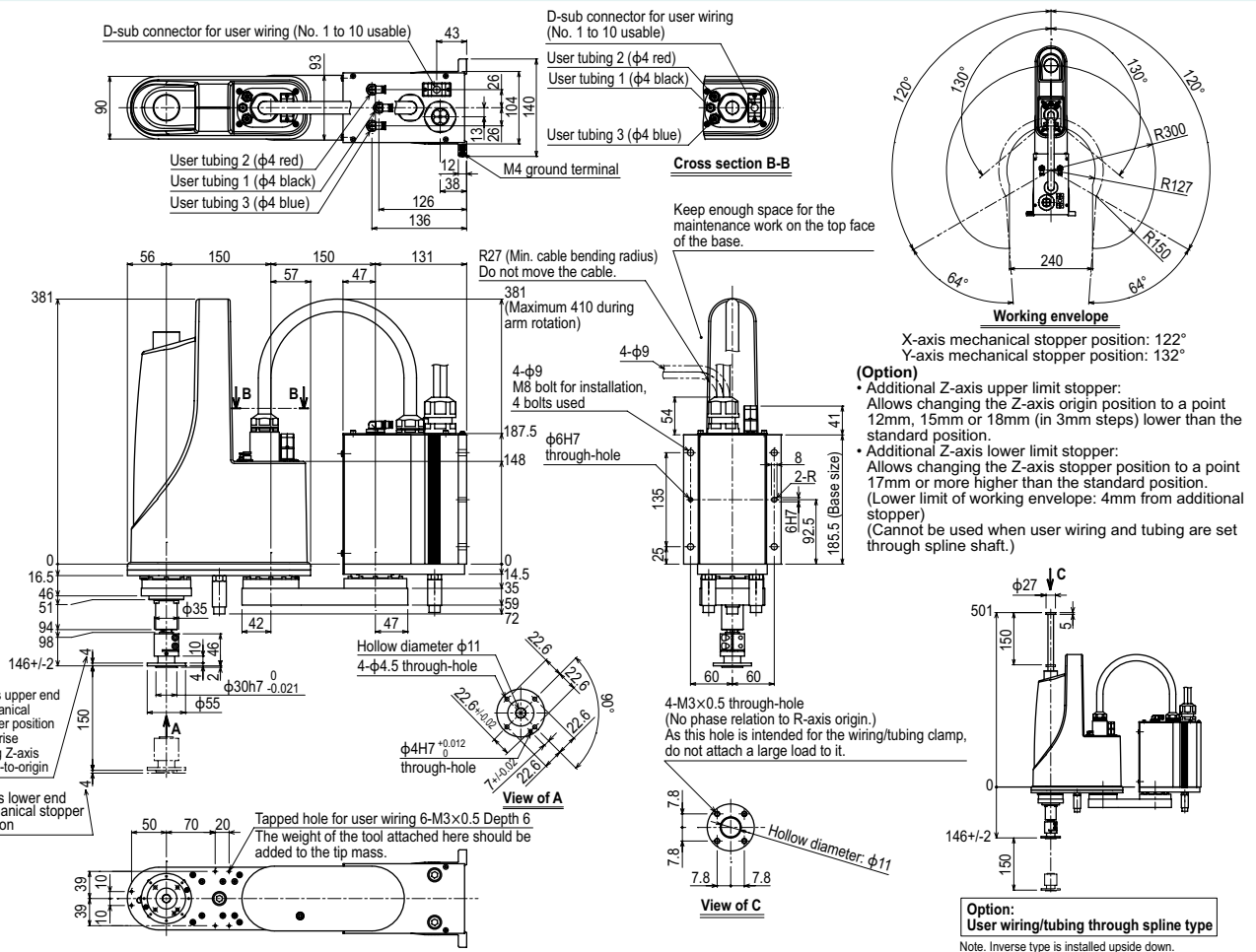
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
<https://global.yamaha-motor.com/business/robot/>

YK300XGS



YA	Articulated robots
LCM	Linear conveyor modules
CX	Single-axis robots
Robonity	Motor-less single axis actuator
TRANSERO	Compact single-axis robots
FLIP-X	Single-axis robots
PHASER	Linear motor single-axis robots
XY-X	Cartesian robots
YK-X	SCARA robots
YP-X	Pick & place robots
CLEAN	CLEAN
CONTROLLER	CONTROLLER
INFORMATION	INFORMATION
Oh/t/	Extra small type
Small /	Medium type
Large type	Large type
Wall mount /	Inverse type
Dust-proof & drip-proof	Dust-proof & drip-proof type

YK300XGS Tool flange mount type



YK400XGS

Wall mount / inverse type

● Arm length 400mm ● Maximum payload 5kg Note. Built-to-order product. Contact us for the delivery period.

Ordering method

YK400XGS	150				RCX340-4								
Model	Installation method ^{Note 1}	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
	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								

Specify various controller setting items. RCX340 ▶ **P.678**

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	250 mm	150 mm	150 mm	-
		+/-125 °	+/-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 (wall mount) 720 °/sec (inverse wall mount)	
Maximum payload		5 kg (Standard specification), 4 kg (Option specifications ^{Note 4})			
Standard cycle time: with 2kg payload ^{Note 2}		0.49 sec			
R-axis tolerable moment of inertia ^{Note 3}		0.05 kgm ²			
User wiring		0.2 sq x 10 wires			
User tubing (Outer diameter)		φ 4 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		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.

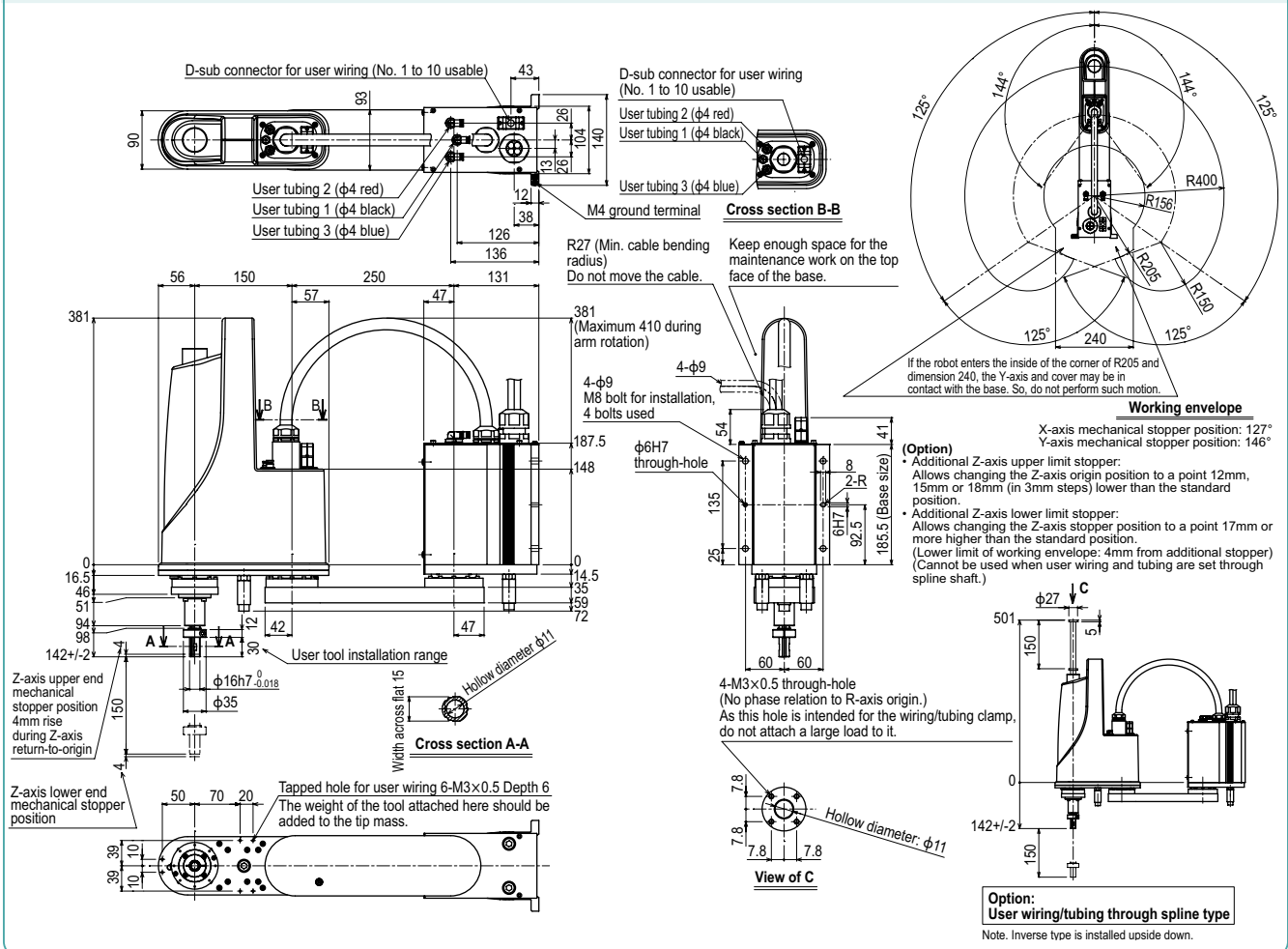
Controller

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.

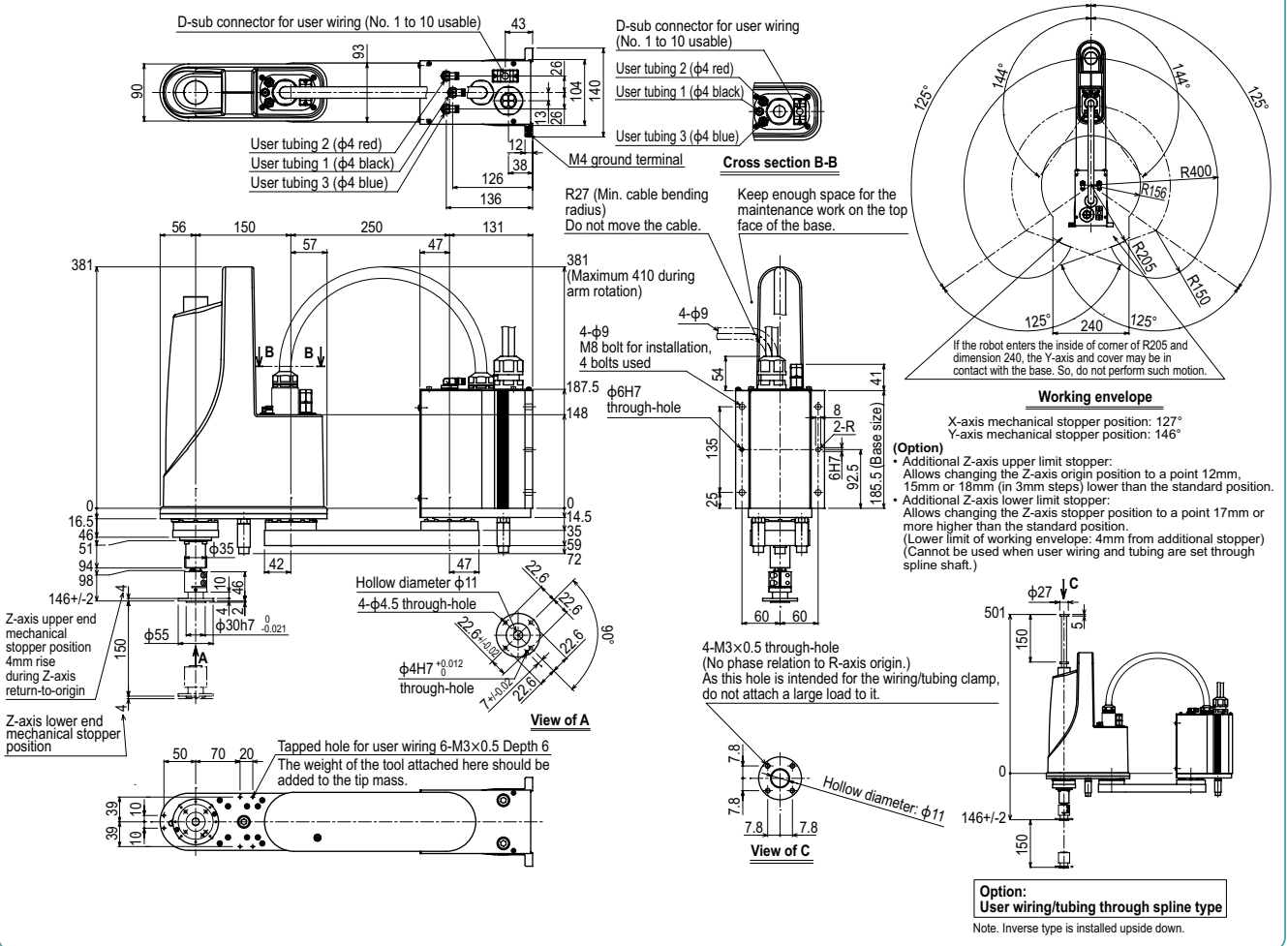
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YK400XGS



YA	Articulated robots
LCM	Linear conveyor modules
CX	Single-axis robots
Robonity	Motor-less single axis actuator
TRANSERO	Compact single-axis robots
FLIP-X	Single-axis robots
PHASER	Linear motor single-axis robots
XY-X	Cartesian robots
YK-X	SCARA robots
YP-X	Pick & place robots
CLEAN	CLEAN
CONTROLLER	CONTROLLER
INFORMATION	INFORMATION
Orbit/Extra small type	Orbit/Extra small type
Small / Medium type	Small / Medium type
Large type	Large type
Wall mount / Inverse type	Wall mount / Inverse type
Dust-proof & drip-proof type	Dust-proof & drip-proof type

YK400XGS Tool flange mount type



YK500XGS

Wall mount / inverse type

- Arm length 500mm
- Maximum payload 10kg

Ordering method

YK500XGS					RCX340-4										
Model	Installation method <small>Note 1</small>	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			
	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									Specify various controller setting items. RCX340 ▶ P.678		

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 °
Deceleration mechanism	Transmission method	400 W	200 W	200 W	200 W
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability <small>Note 1</small>		+/-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 <small>Note 2</small>		0.45 sec			
R-axis tolerable moment of inertia <small>Note 3</small>		0.30 kgm ²			
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.

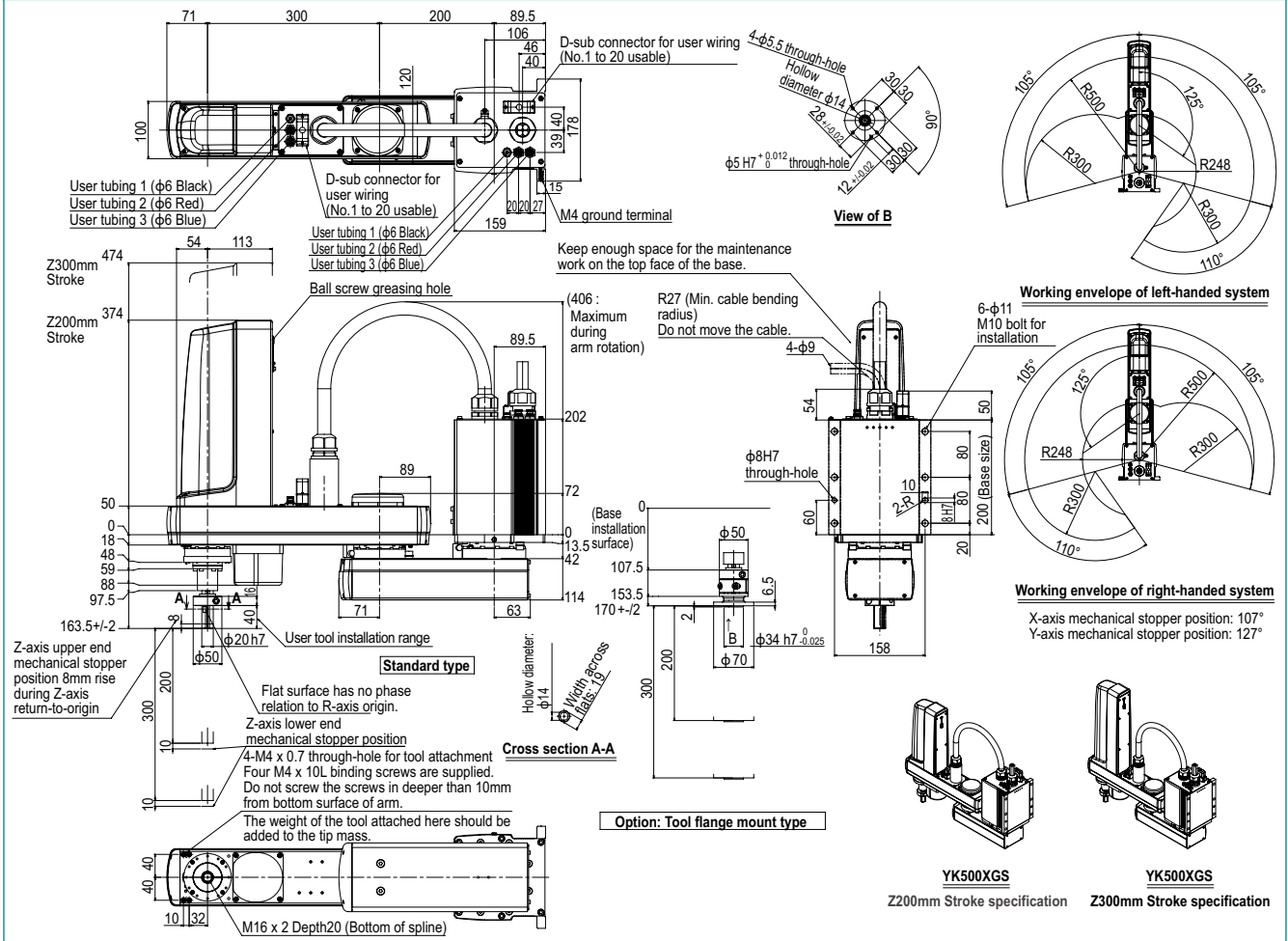
Controller

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.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:
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YK500XGS



YK600XGS

Wall mount / inverse type

- Arm length 600mm
- Maximum payload 10kg

Ordering method

YK600XGS					RCX340-4											
Model	Installation method 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	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.678

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	300 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	Direct-coupled			
Transmission method	Direct-coupled			
Motor to speed reducer	Direct-coupled			
Speed reducer to output	Direct-coupled			
Repeatability	+/-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	0.46 sec			
R-axis tolerable moment of inertia	0.30 kgm ²			
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.

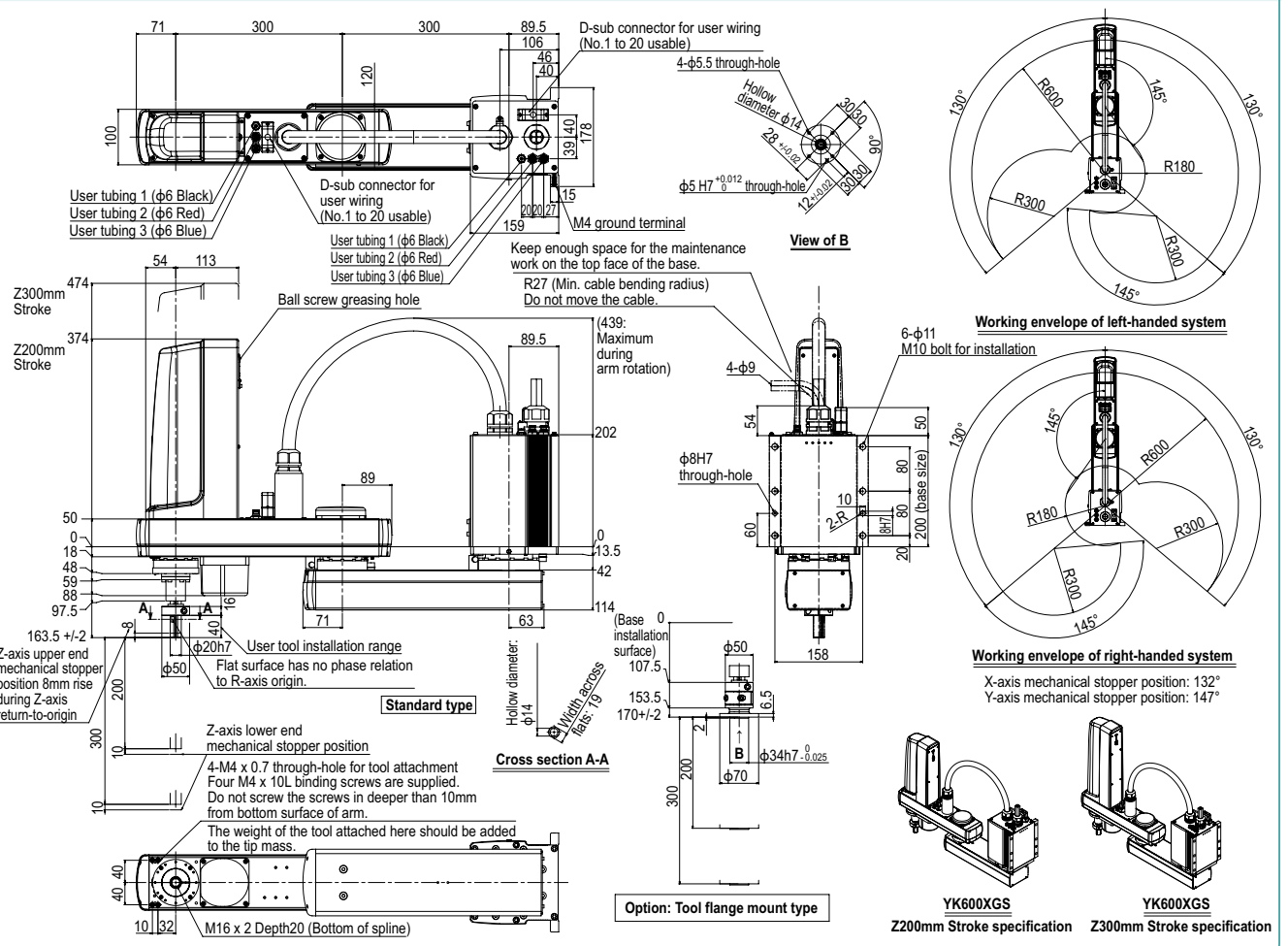
Controller

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

YK600XGS



YK700XGS

Wall mount / inverse type

- Arm length 700mm
- Maximum payload 20kg

Ordering method

YK700XGS					RCX340-4								
Model	Installation method <small>Note 1</small>	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	
	W: Wall mount (same as per external view) U: Inverse wall mount (upside down)	200: 200mm 400: 400mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m									

Specify various axes controller setting items. RCX340 ▶ **P.678**

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	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability <small>Note 1</small>		+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed		8.4 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 <small>Note 2</small>		0.42 sec			
R-axis tolerable moment of inertia <small>Note 3</small>		1.0 kgm ²			
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.

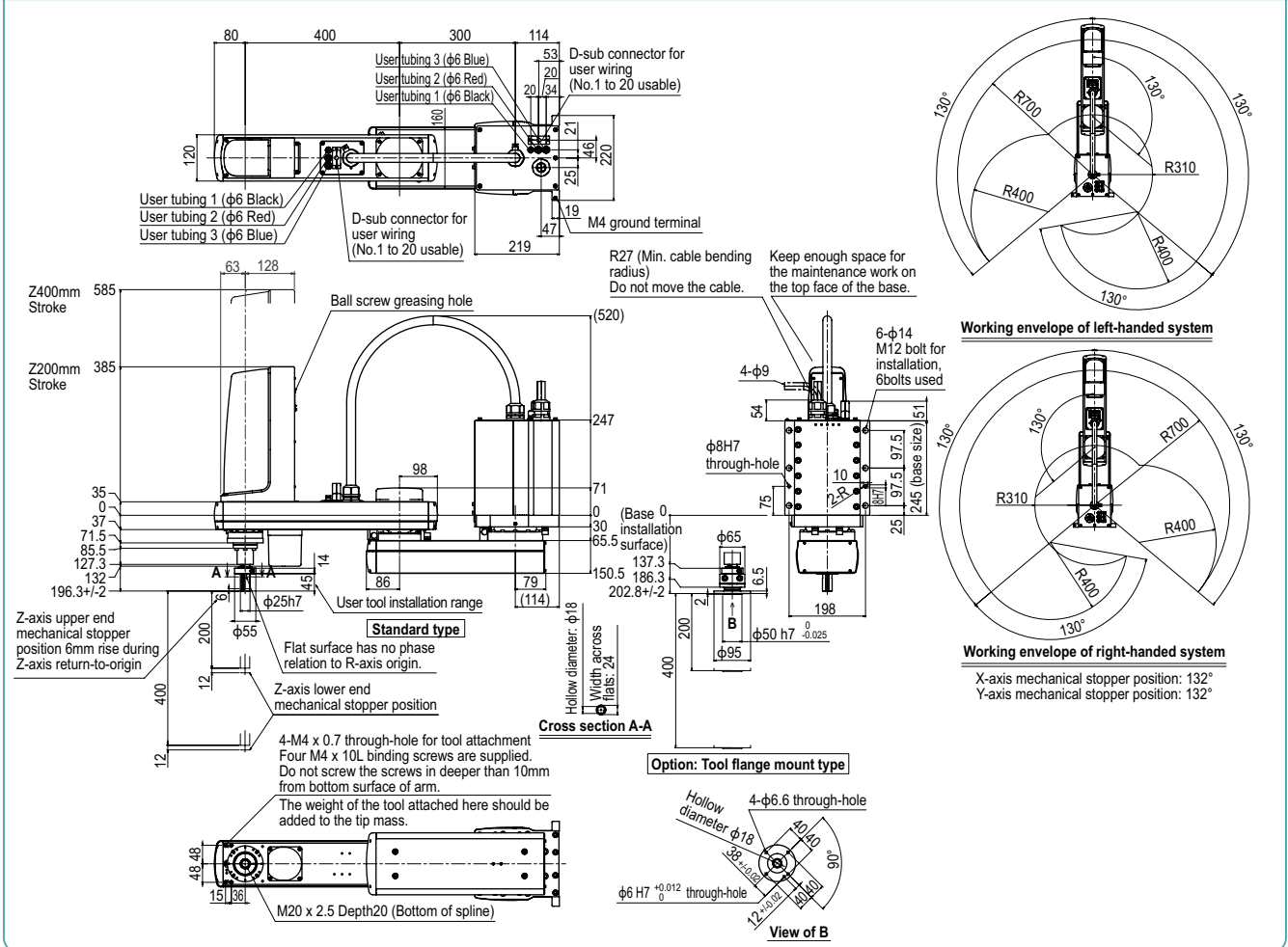
Controller

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.

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

YK700XGS



YK800XGS

Wall mount / inverse type

- Arm length 800mm
- Maximum payload 20kg

Ordering method

YK800XGS						RCX340-4									
Model	Installation method <small>Note 1</small>	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			
	W: Wall mount (same as per external view) I: Inverse wall mount (upside down)	200: 200mm 400: 400mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m									Specify various axes controller setting items. RCX340 ▶ P.678		

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		400 mm	400 mm	200 mm/400 mm	—
AC servo motor output		+/-130 °	+/-145 °	—	+/-360 °
Deceleration mechanism	Transmission method	750 W	400 W	400 W	200 W
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability <small>Note 1</small>		+/-0.02 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		9.2 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 <small>Note 2</small>		0.48 sec			
R-axis tolerable moment of inertia <small>Note 3</small>		1.0 kgm ²			
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: 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.

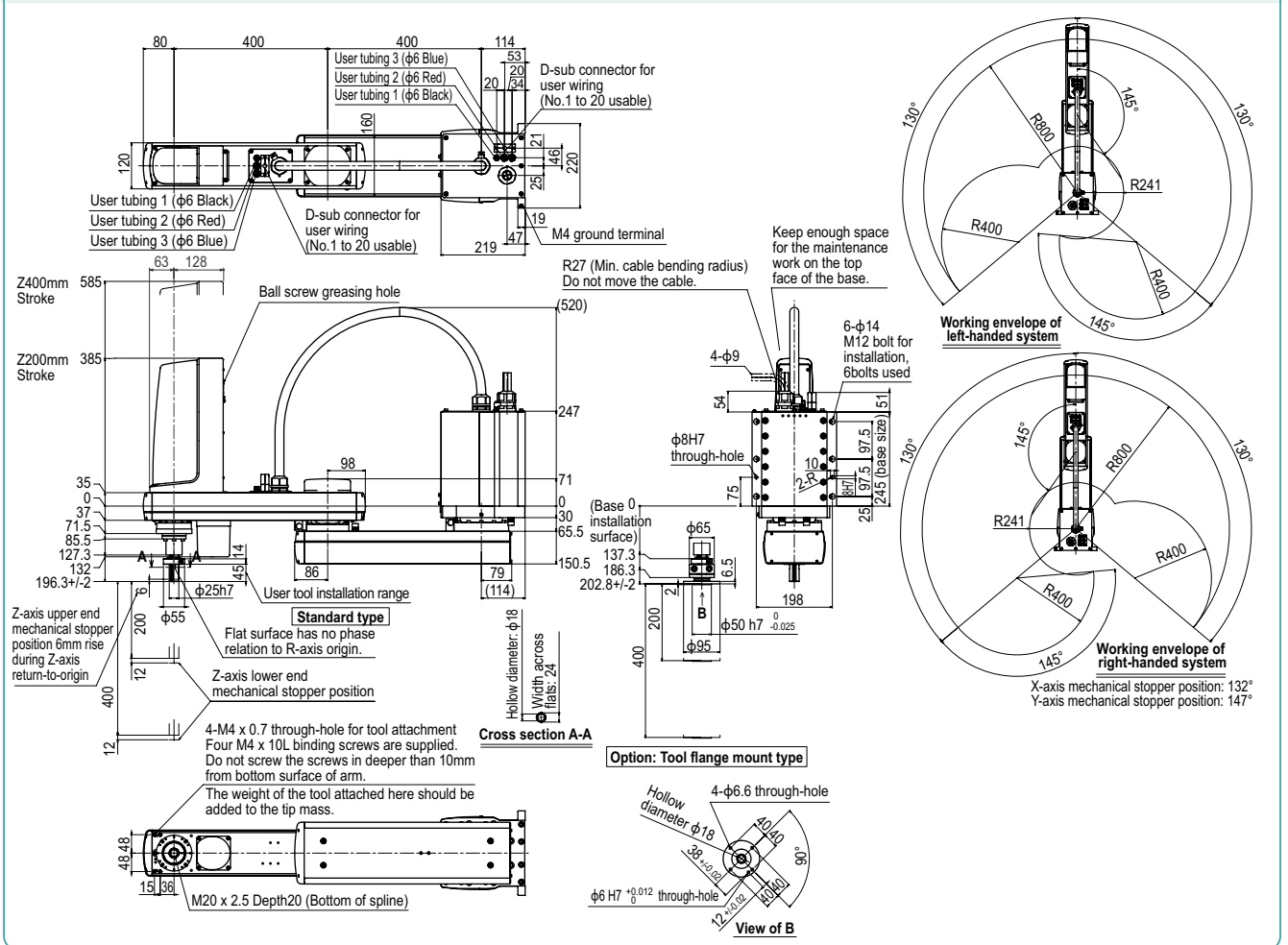
Controller

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.

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

YK800XGS



YK900XGS

Wall mount / inverse type

- Arm length 900mm
- Maximum payload 20kg

Ordering method

YK900XGS					RCX340-4											
Model	Installation method <small>Note 1</small> 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.678**

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	-
AC servo motor output		+/-130 °	+/-150 °	-	+/-360 °
Deceleration mechanism	Transmission method	750 W	400 W	400 W	200 W
Motor to speed reducer	Speed reducer to output	Direct-coupled			
Repeatability <small>Note 1</small>		Direct-coupled			
Maximum speed		+/-0.02 mm	+/-0.01 mm	+/-0.004 °	
Maximum payload		9.9 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 <small>Note 2</small>		20 kg (Standard type), 19 kg (Tool flange mount type)			
R-axis tolerable moment of inertia <small>Note 3</small>		0.49 sec			
User wiring		1.0 kgm ²			
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: 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.

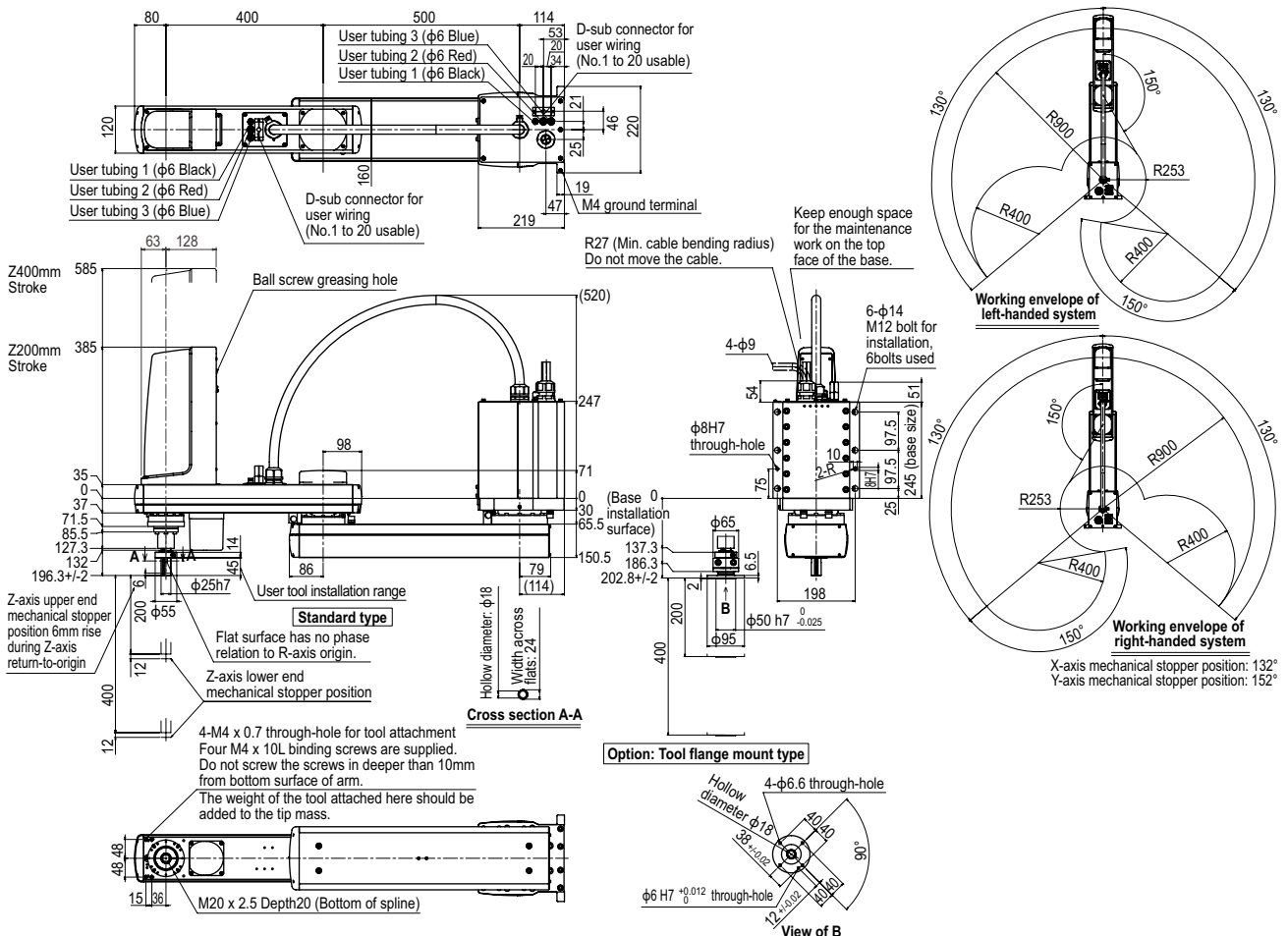
Controller

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.

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YK900XGS



YK1000XGS

Wall mount / inverse type

- Arm length 1000mm
- Maximum payload 20kg

Ordering method

YK1000XGS [] [] [] [] **RCX340-4** [] [] [] [] [] [] [] [] [] []

Model	Installation method ^{Note 1}	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
	W: Wall mount (same as per external view) U: Inverse wall mount (upside down)	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.678

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	Direct-coupled			
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	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 ^{Note 2}	0.49 sec			
R-axis tolerable moment of inertia ^{Note 3}	1.0 kgm ²			
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: 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 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.

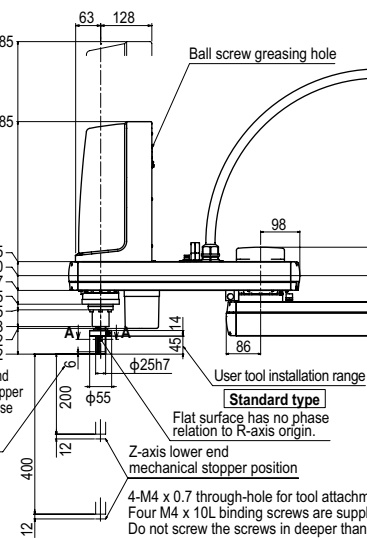
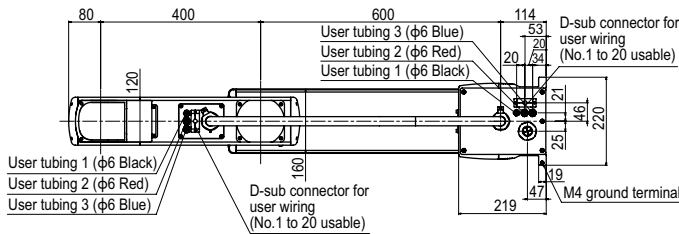
Controller

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

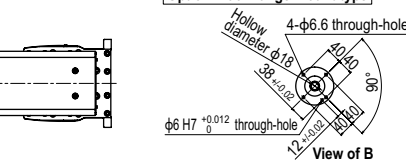
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
See our robot manuals (installation manuals) for detailed information.

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

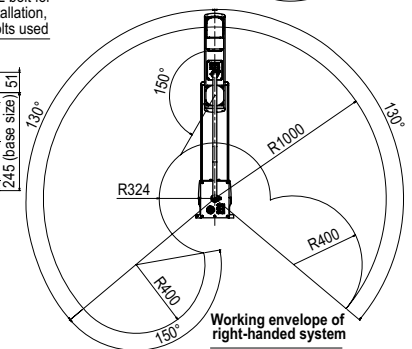
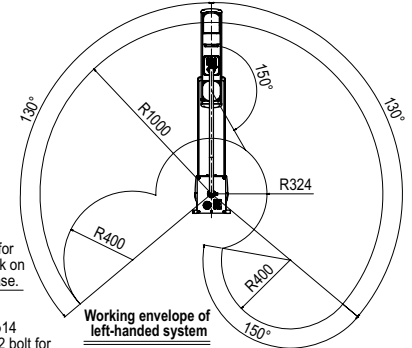
YK1000XGS



Cross section A-A



Option: Tool flange mount type



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

YK250XGP

Dust-proof & drip-proof type



- Arm length 250mm
- Maximum payload 4kg

Ordering method

YK250XGP - 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.678**

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	Direct-coupled			
	Motor to speed reducer Speed reducer to output	Direct-coupled			
Repeatability ^{Note 1}		+/-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 ^{Note 2}		0.50 sec			
R-axis tolerable moment of inertia ^{Note 3}		0.05 kgm ²			
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		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.

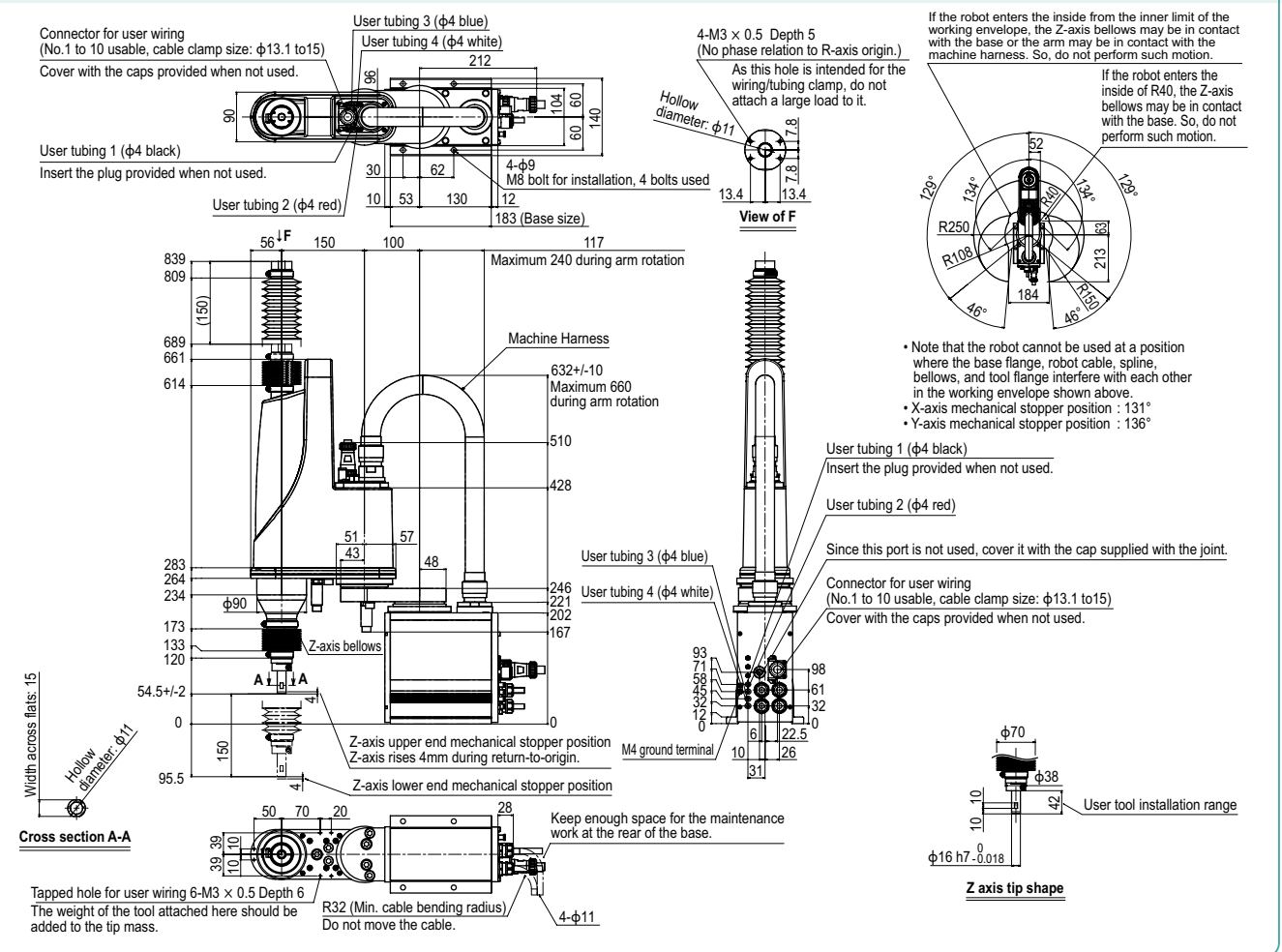
Controller

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.

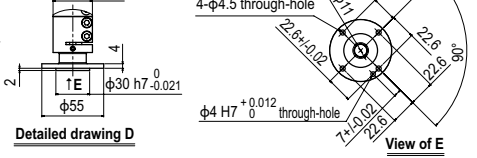
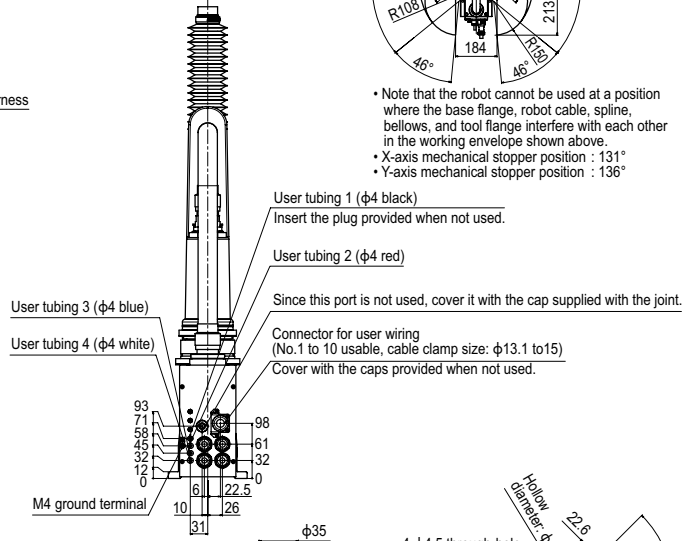
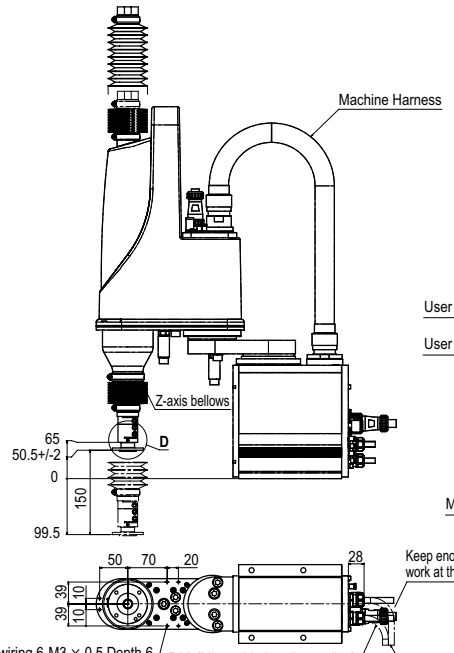
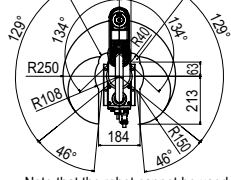
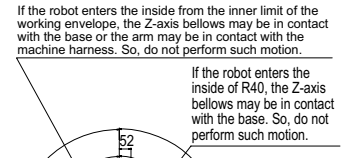
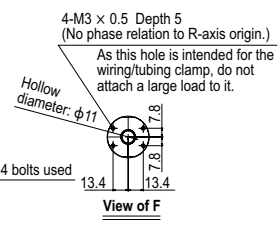
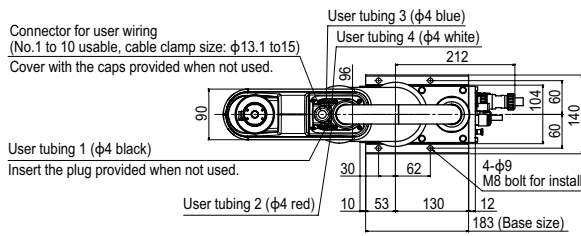
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
<https://global.yamaha-motor.com/business/robot/>

YK250XGP



YA	Articulated robots
LCM	Linear conveyor modules
CX	Single-axis robots
Robonity	Motor-less single axis actuator
TRANSERO	Compact single-axis robots
FLIP-X	Single-axis robots
PHASER	Linear motor single-axis robots
XY-X	Cartesian robots
YK-X	SCARA robots
YP-X	Pick & place robots
CLEAN	CLEAN
CONTROLLER	CONTROLLER
INFORMATION	INFORMATION
Orbit/Extra small type	Orbit/Extra small type
Small / Medium type	Small / Medium type
Large type	Large type
Wall mount / Inverse type	Wall mount / Inverse type
Dust-proof & drip-proof type	Dust-proof & drip-proof type

YK250XGP Tool flange mount type



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.

YK350XGP

Dust-proof & drip-proof type

- Arm length 350mm
- Maximum payload 4kg

Ordering method

YK350XGP - 150 **S** **RCX340-4**

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
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Specify various controller setting items. RCX340 ▶ **P.678**

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 ²			
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 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

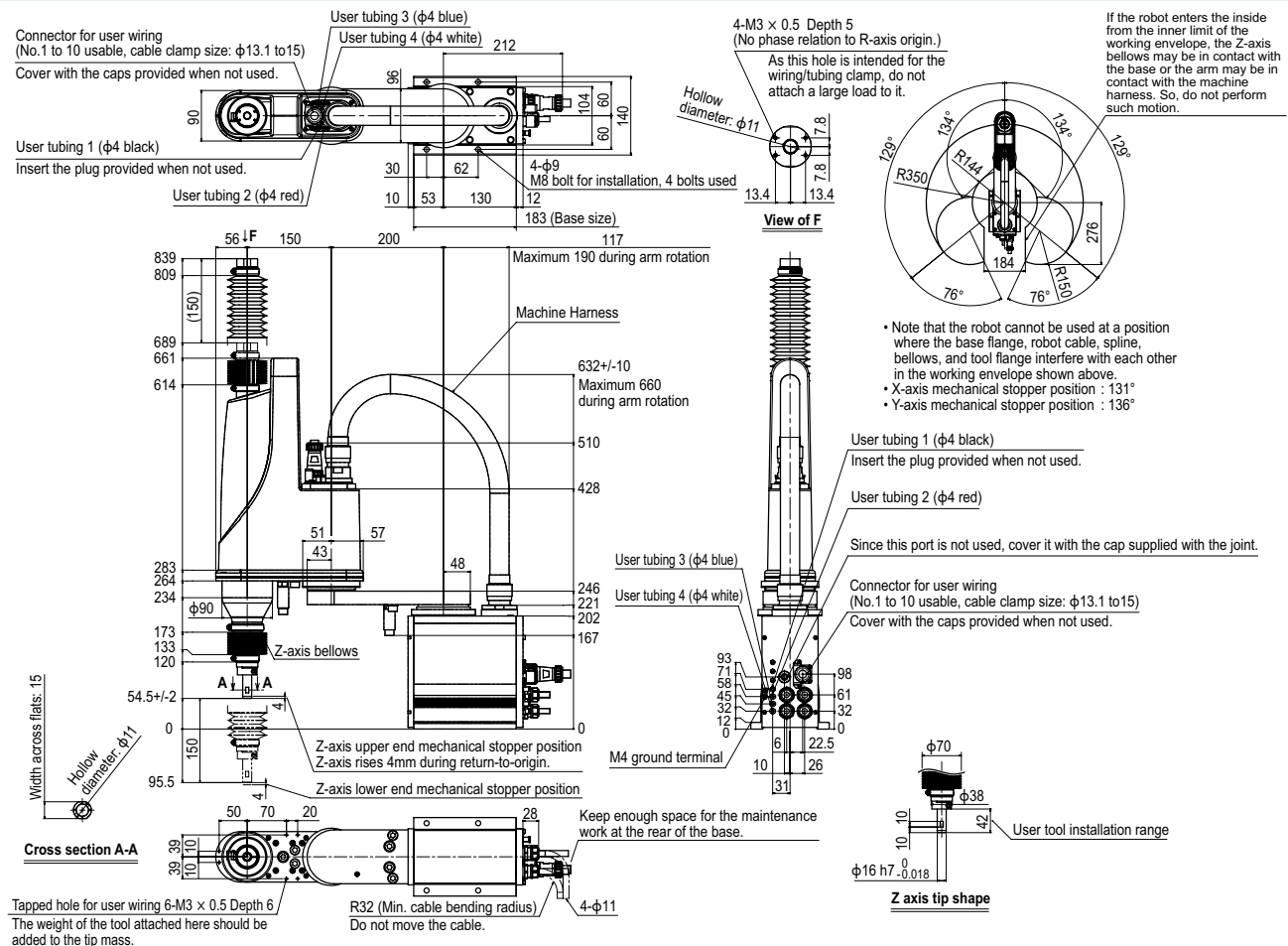
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

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YK350XGP



YA	Articulated robots
LCM	Linear conveyor modules
CX	Single-axis robots
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PHASER	Linear motor single-axis robots
XY-X	Cartesian robots
YK-X	SCARA robots
YF-X	Pick & place robots
CLEAN	CLEAN
CONTROLLER	CONTROLLER
INFORMATION	INFORMATION
Orbit/Extra small type	Orbit/Extra small type
Small / Medium type	Small / Medium type
Large type	Large type
Wall mount / Inverse type	Wall mount / Inverse type
Dust-proof & drip-proof type	Dust-proof & drip-proof type

YK350XGP Tool flange mount type

Connector for user wiring (No.1 to 10 usable, cable clamp size: φ13.1 to 15)
Cover with the caps provided when not used.

User tubing 3 (φ4 blue) 212
User tubing 4 (φ4 white)

User tubing 1 (φ4 black)
Insert the plug provided when not used.

User tubing 2 (φ4 red)

30 62 10.4 60 140 183 (Base size)

4-M3 x 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: φ11

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.

View of F

13.4 7.8 7.8 13.4

129° 134° 134.5° 129°
R350 R144 R350 R350
276 184 76° 76°

• 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 : 136°

Machine Harness

Z-axis bellows

User tubing 1 (φ4 black)
Insert the plug provided when not used.

User tubing 2 (φ4 red)
Since this port is not used, cover it with the cap supplied with the joint.

User tubing 3 (φ4 blue)

User tubing 4 (φ4 white)

Connector for user wiring (No.1 to 10 usable, cable clamp size: φ13.1 to 15)
Cover with the caps provided when not used.

M4 ground terminal

93 71 58 45 32 12 0 98 61 32 0 10 22.5 26 31

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

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-φ11

Detailed drawing D

φ35 4 1E φ30 h7-0.021 φ55 2

Hollow diameter: φ11 22.6 22.6 ±0.02 22.6 22.6 90° 7 ±0.001 22.6

4-φ4.5 through-hole φ4 H7 ^{+0.012}/₀ through-hole

View of E

YK400XGP

Dust-proof & drip-proof type



- Arm length 400mm
- Maximum payload 4kg

Ordering method

YK400XGP-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 6L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	250 mm	150 mm	150 mm	-
	Rotation angle	+/-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			
Repeatability	Speed reducer to output	Direct-coupled			
	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		0.50 sec			
R-axis tolerable moment of inertia		0.05 kgm ²			
Protection class		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		22.5 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.

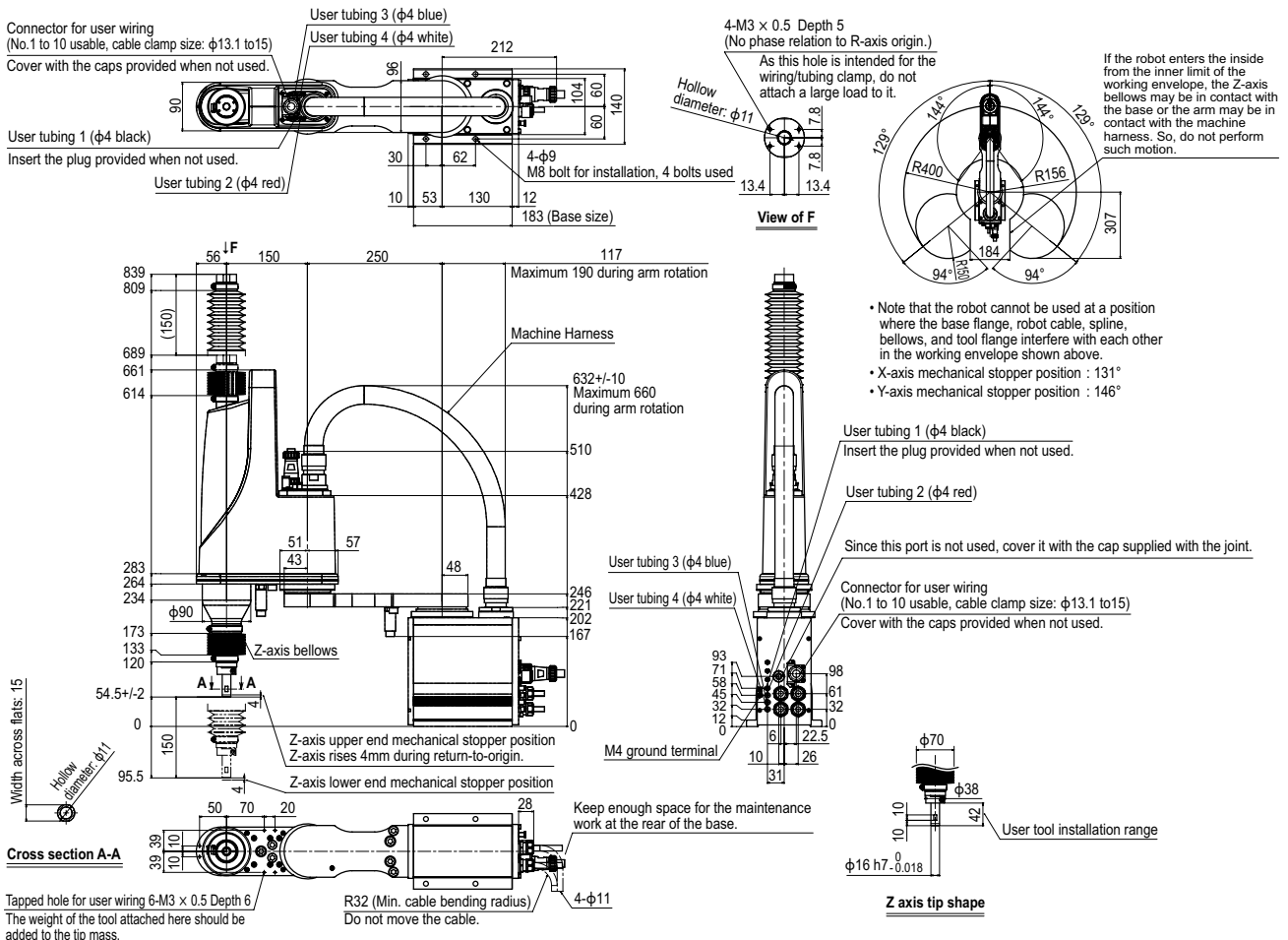
Controller

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.

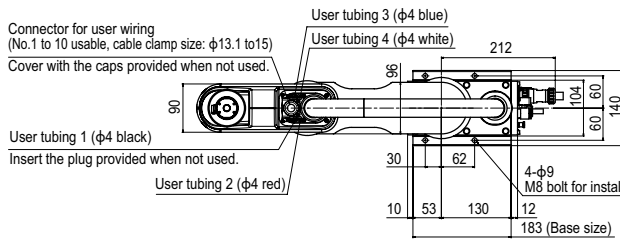
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YK400XGP

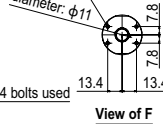


YA	Articulated robots
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TRANSERO	Compact single-axis robots
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PHASER	Linear motor single-axis robots
XY-X	Cartesian robots
YK-X	SCARA robots
YP-X	Pick & place robots
CLEAN	CLEAN
CONTROLLER	CONTROLLER
INFORMATION	INFORMATION
Orbit/Extra small type	Orbit/Extra small type
Small / Medium type	Small / Medium type
Large type	Large type
Wall mount / Inverse type	Wall mount / Inverse type
Dust-proof & drip-proof type	Dust-proof & drip-proof type

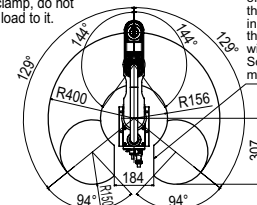
YK400XGP Tool flange mount type



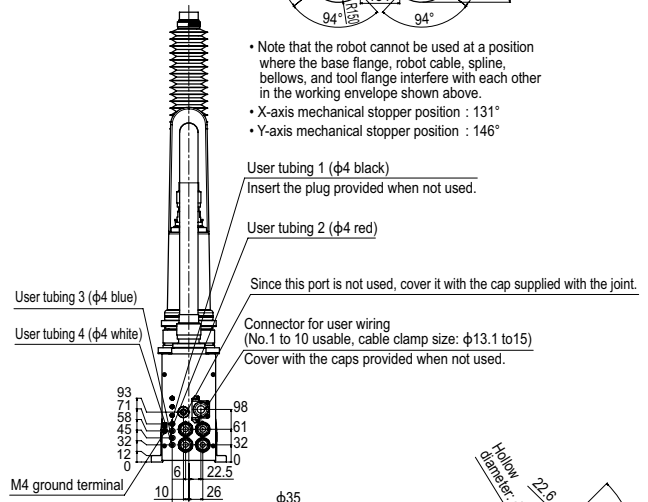
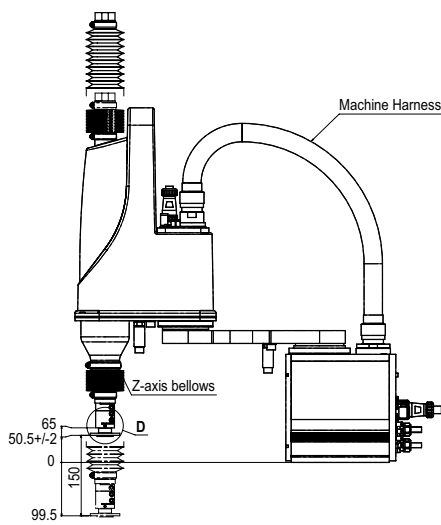
4-M3 \times 0.5 Depth 5
(No phase relation to R-axis origin.)
As this hole is intended for the wiring/tubing clamp, do not attach a large load to it.



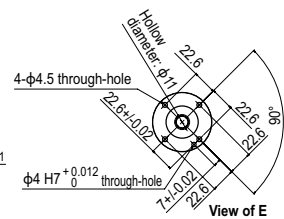
If the robot enters the inside from the inner limit of the working envelope, the Z-axis bellows may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.



- 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°



Detailed drawing D



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.

4- $\phi 11$

YK500XGLP

Dust-proof & drip-proof type

- Arm length 500mm
- Maximum payload 4kg

Ordering method

YK500XGLP - 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.678**

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	Direct-coupled			
	Motor to speed reducer Speed reducer to output	Direct-coupled			
Repeatability ^{Note 1}		+/-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 ^{Note 2}		0.66 sec			
R-axis tolerable moment of inertia ^{Note 3}		0.05 kgm ²			
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		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

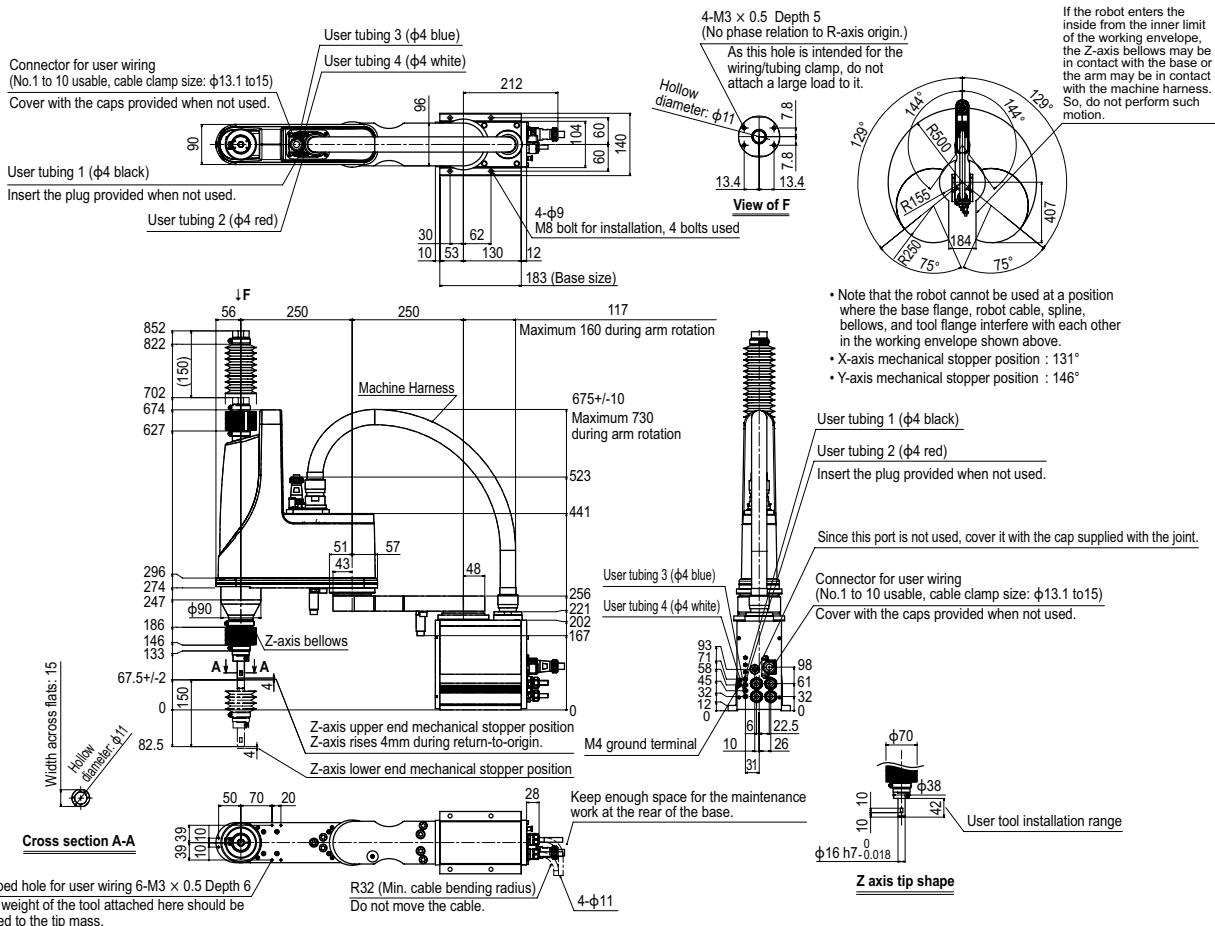
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

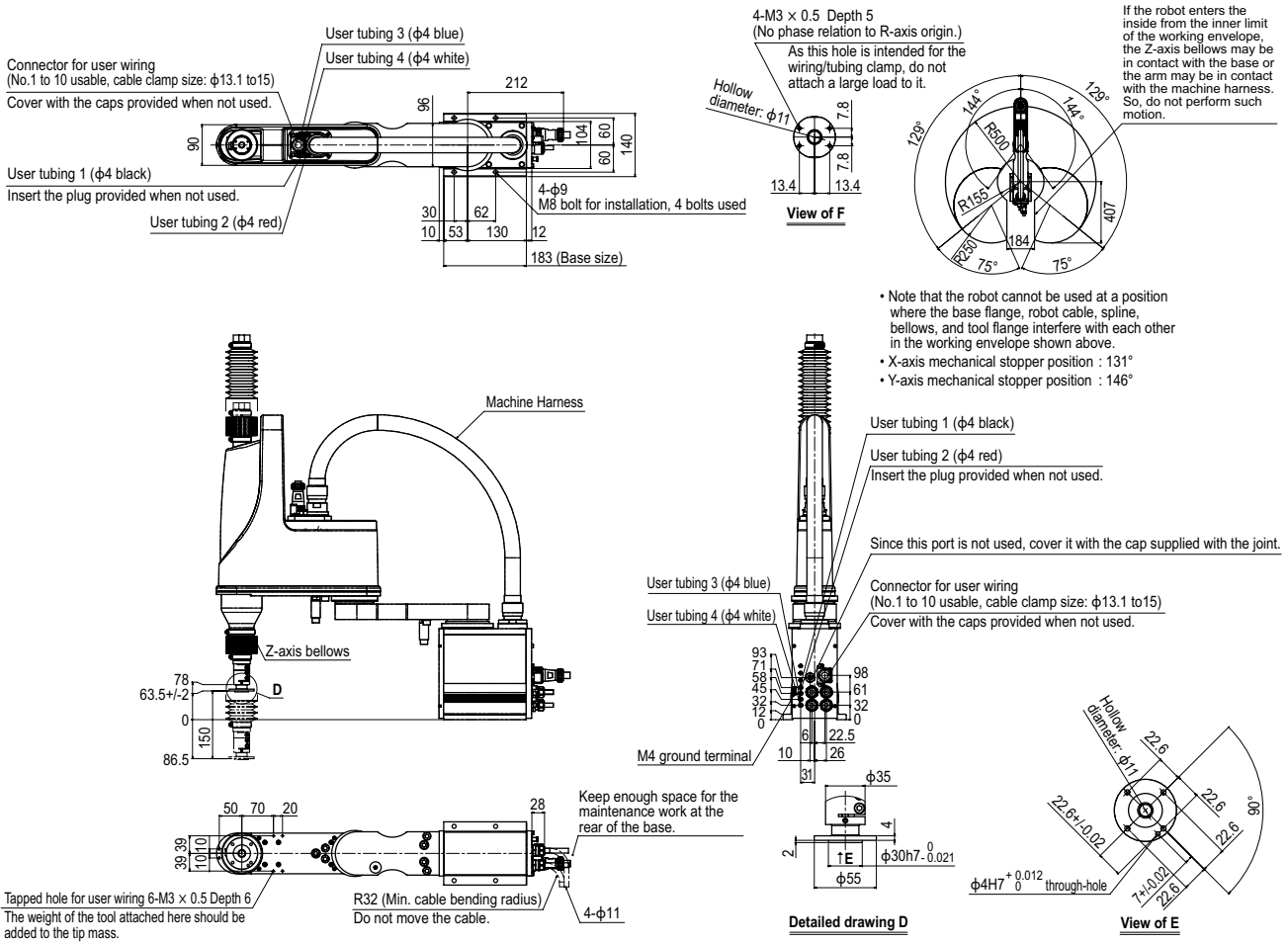
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
<https://global.yamaha-motor.com/business/robot/>

YK500XGLP



YA	Articulated robots
LCM	Linear conveyor modules
CX	Single-axis robots
Robonity	Motor-less single axis actuator
TRANSEVO	Compact single-axis robots
FLIP-X	Single-axis robots
PHASER	Linear motor single-axis robots
XY-X	Cartesian robots
YK-X	SCARA robots
YP-X	Pick & place robots
CLEAN	CLEAN
CONTROLLER	CONTROLLER
INFORMATION	INFORMATION
Orbit/Extra small type	Orbit/Extra small type
Small / Medium type	Small / Medium type
Large type	Large type
Wall mount / Inverse type	Wall mount / Inverse type
Dust-proof & drip-proof type	Dust-proof & drip-proof type

YK500XGLP Tool flange mount type



YK500XGP

Dust-proof & drip-proof type

- Arm length 500mm
- Maximum payload 10kg

Ordering method

YK500XGP		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.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	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 <small>Note 1</small>		+/-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 <small>Note 2</small>		0.55 sec			
R-axis tolerable moment of inertia <small>Note 3</small>		0.3 kgm ²			
Protection class <small>Note 4</small>		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: 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 standard 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.

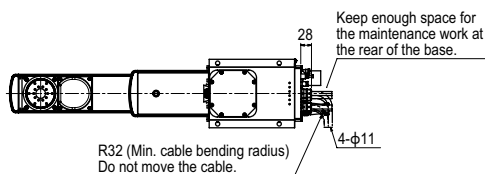
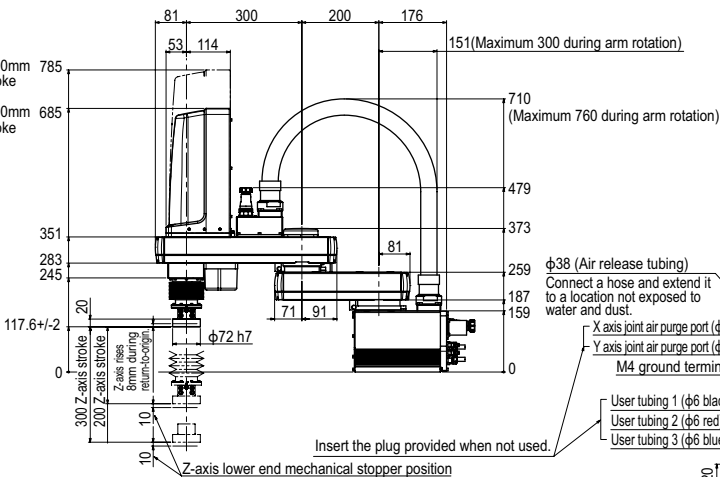
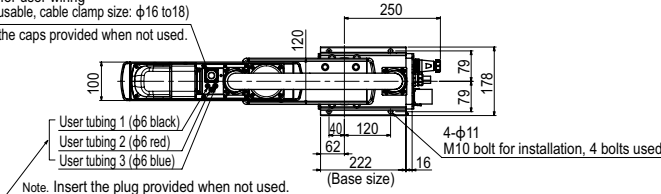
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
<https://global.yamaha-motor.com/business/robot/>

YK500XGP

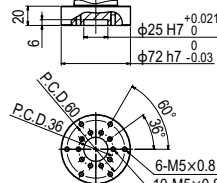
Connector for user wiring

(No. 1 to 20 usable, cable clamp size: φ16 to 18)

Cover with the caps provided when not used.

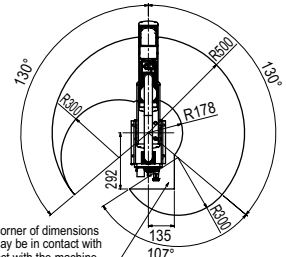


R32 (Min. cable bending radius)
Do not move the cable.

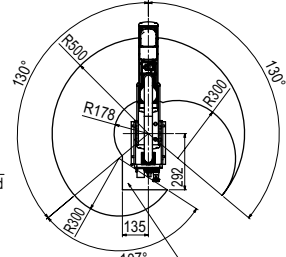


Z axis tip shape

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°

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

YK600XGLP

Dust-proof & drip-proof type

- Arm length 600mm
- Maximum payload 4kg

Ordering method

YK600XGLP-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 6L: 5m 10L: 10m								

Specify various axes controller setting items. RCX340 ▶ **P.678**

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	Direct-coupled			
	Motor to speed reducer Speed reducer to output	Direct-coupled			
Repeatability ^{Note 1}		+/-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 ^{Note 2}		0.71 sec			
R-axis tolerable moment of inertia ^{Note 3}		0.05 kgm ²			
Protection class ^{Note 4}		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.

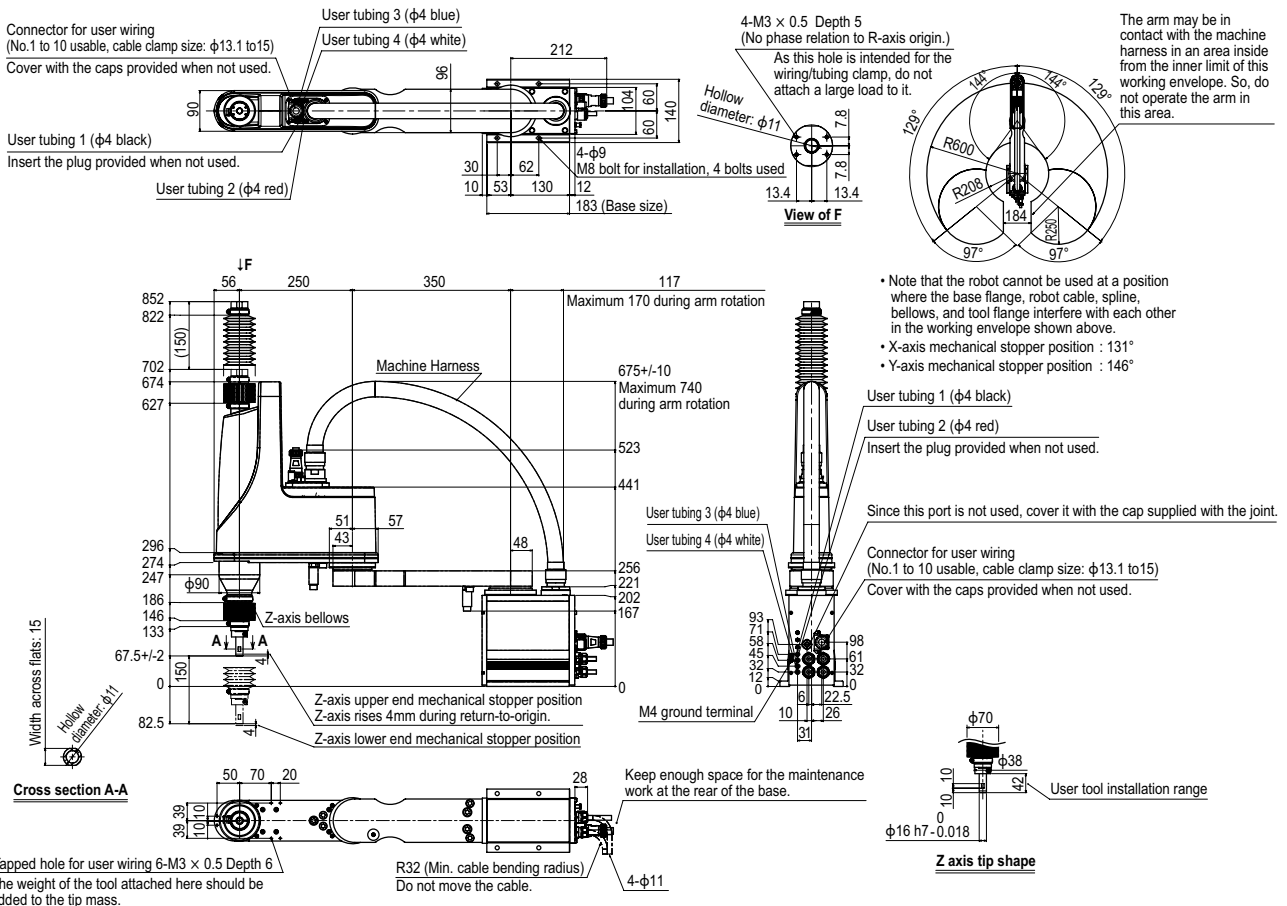
Controller

Controller	Power capacity (VA)	Operation method
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.

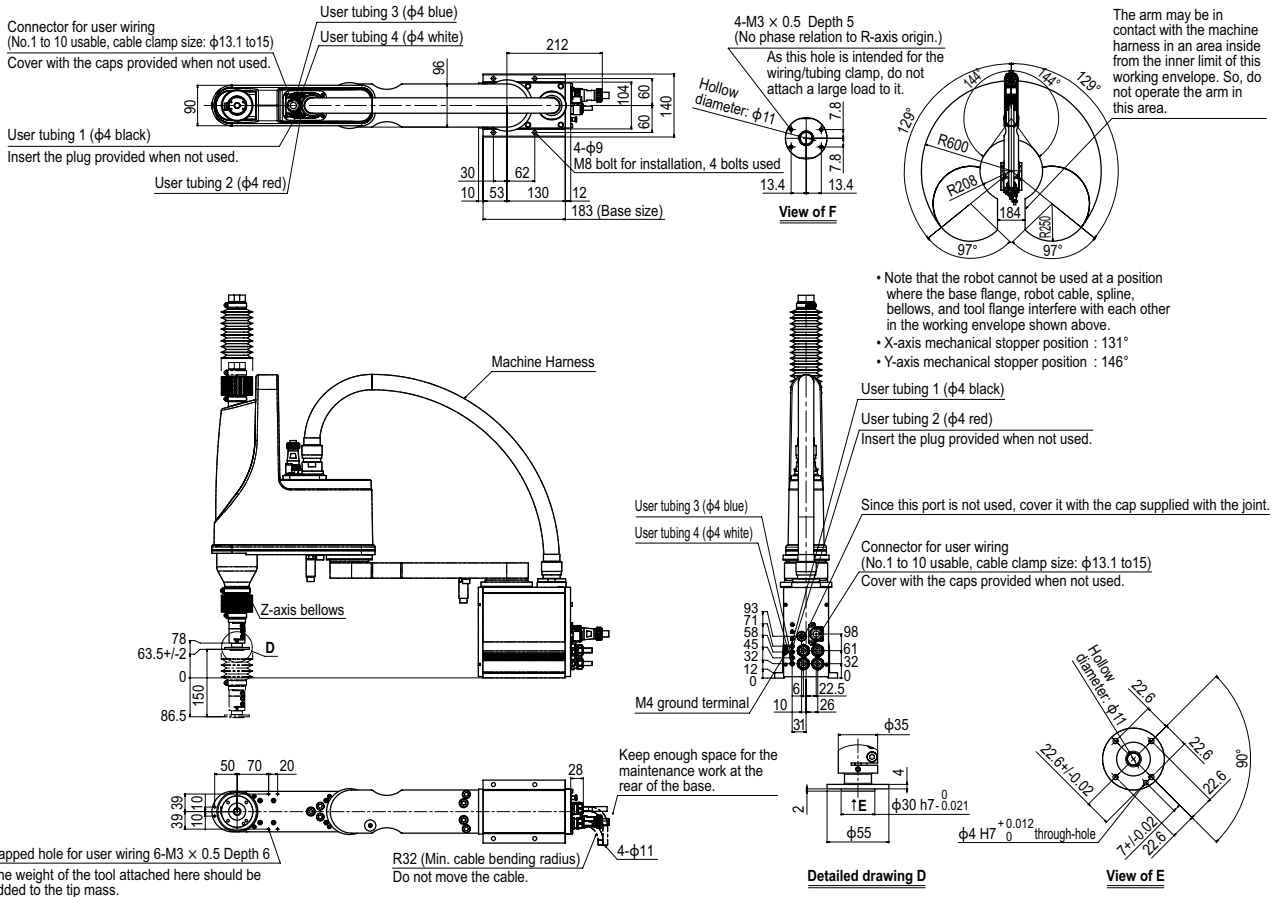
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
<https://global.yamaha-motor.com/business/robot/>

YK600XGLP



- Articulated robots YA
- Linear conveyor modules LCM
- Single-axis robots CX
- Motor-less single axis actuator Robonty
- Compact single-axis robots TRANSERO
- Single-axis robots FLIP-X
- Linear motor single-axis robots PHASER
- Cartesian robots XY-X
- SCARA robots YK-X
- Pick & place robots YP-X
- CLEAN
- CONTROLLER INFORMATION
- Ohbi/Extra small type
- Small / Medium type
- Large type
- Wall mount / Inverse type
- Dust-proof & drip-proof type

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.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	300 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 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 ²			
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.

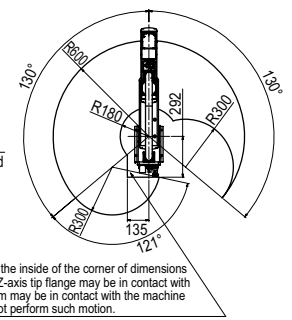
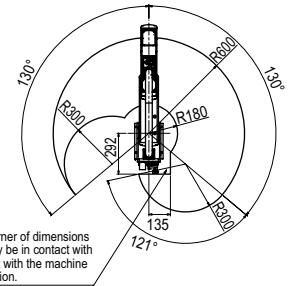
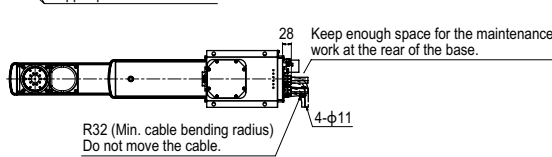
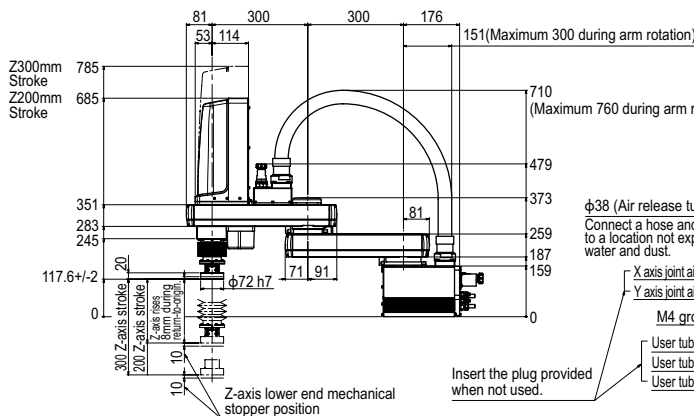
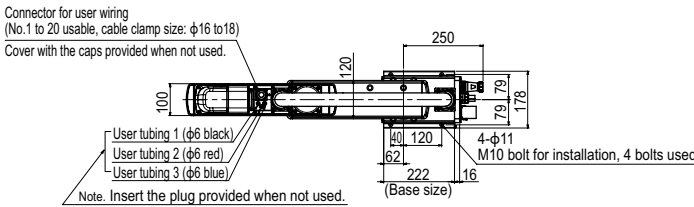
Controller

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.

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YK600XGP



- 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°

YK600XGHP

Dust-proof & drip-proof type

- Arm length 600mm
- Maximum payload 18kg

Ordering method

YK600XGHP	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 400: 400mm	F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.678**

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	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
Repeatability ^{Note 1}	Speed reducer to output	Direct-coupled			
		+/-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		18 kg			
Standard cycle time: with 2kg payload ^{Note 2}		0.57 sec			
R-axis tolerable moment of inertia ^{Note 3}		1.0 kgm ²			
Protection class ^{Note 4}		Equivalent to IP65 (IEC 60529)			
User wiring (sq x wires)		0.2 x 20			
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: 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

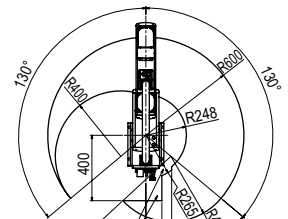
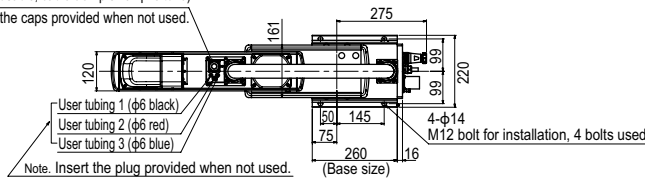
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
 See our robot manuals (installation manuals) for detailed information.

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.

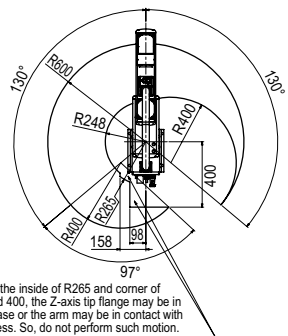
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
<https://global.yamaha-motor.com/business/robot/>

YK600XGHP

Connector for user wiring
 (No.1 to 20 usable, cable clamp size: φ16 to 18)
 Cover with the caps provided when not used.

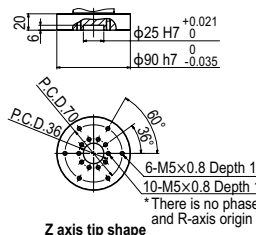
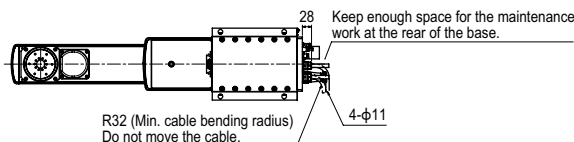
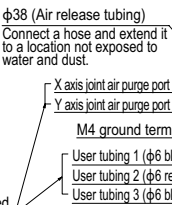
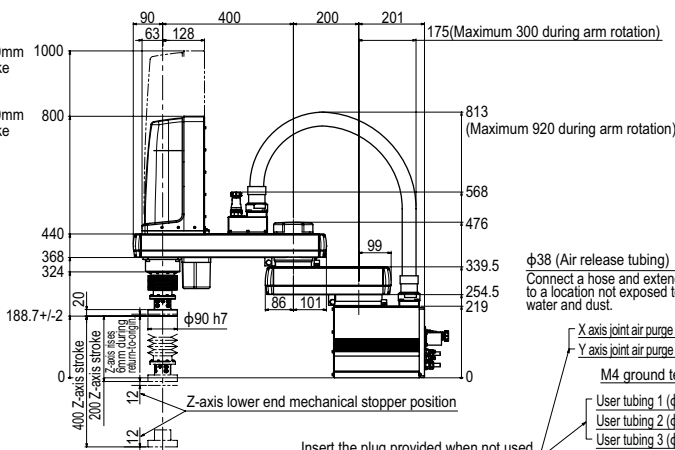


Working envelope of left-handed system



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°



Z axis tip shape

YK700XGP

Dust-proof & drip-proof type



- Arm length 700mm
- Maximum payload 20kg

Ordering method

YK700XGP		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 400: 400mm	F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	300 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 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 ²			
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.

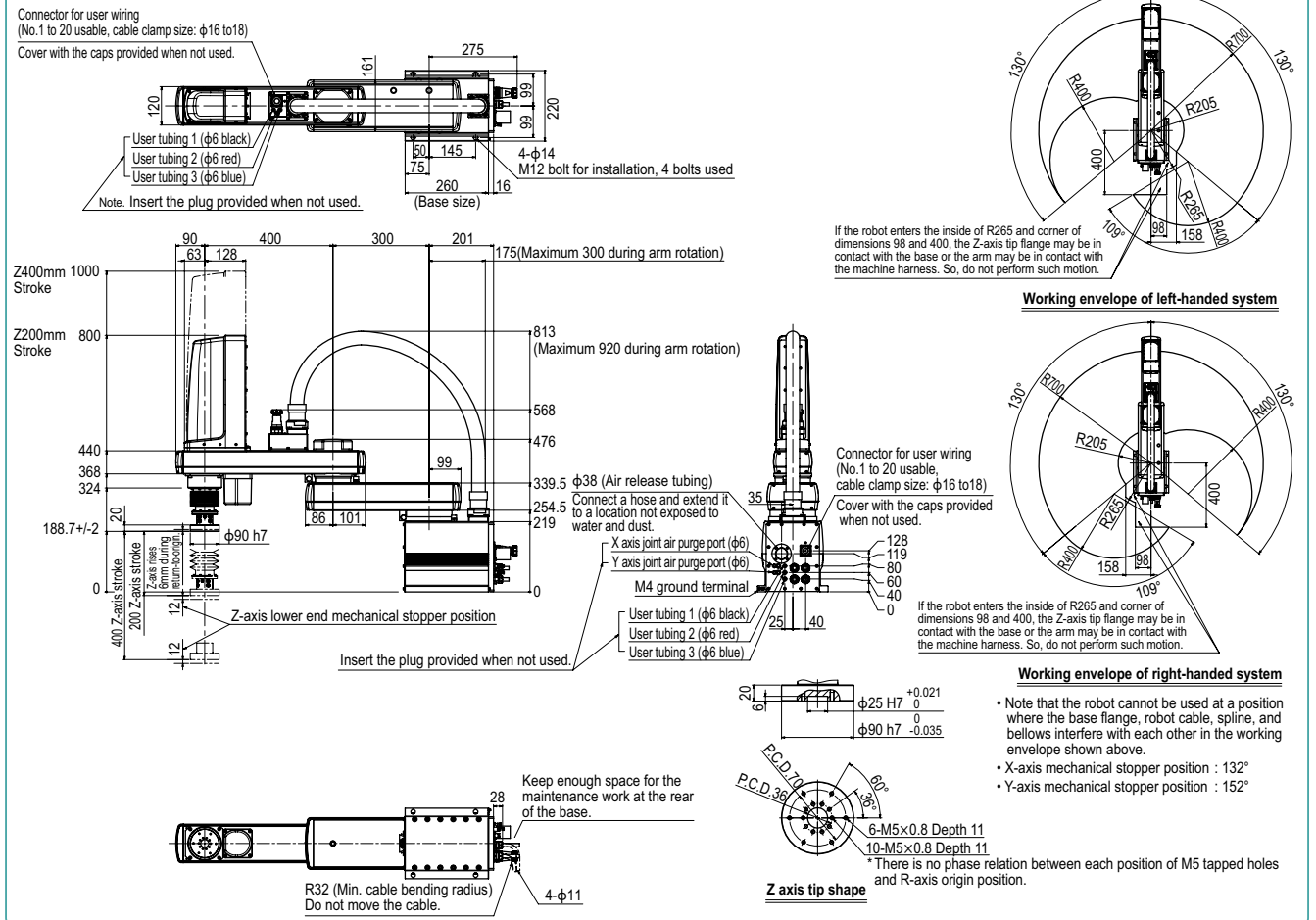
Controller

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.

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YK700XGP



YK800XGP

Dust-proof & drip-proof type

- Arm length 800mm
- Maximum payload 20kg

Ordering method

YK800XGP		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 400: 400mm	F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m									

Specify various controller setting items. RCX340 ▶ **P.678**

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 °	—	+/-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			
Repeatability ^{Note 1}		+/-0.02 mm	+/-0.01 mm	+/-0.004 °	
	Maximum speed	9.2 m/sec	2.3 m/sec	1.7 m/sec	920 °/sec
Maximum payload		20 kg			
Standard cycle time: with 2kg payload ^{Note 2}		0.58 sec			
R-axis tolerable moment of inertia ^{Note 3}		1.0 kgm ²			
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: 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

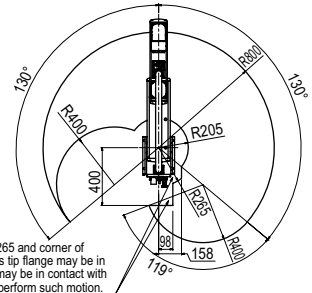
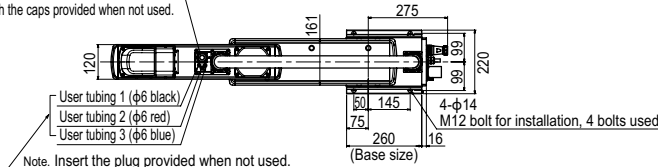
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
 See our robot manuals (installation manuals) for detailed information.

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/>

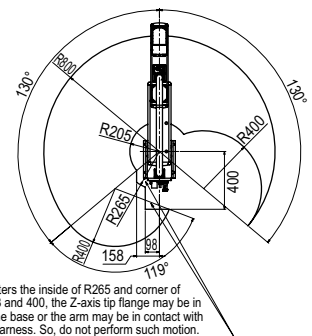
YK800XGP

Connector for user wiring (No.1 to 20 usable, cable clamp size: φ16 to 18)
 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.

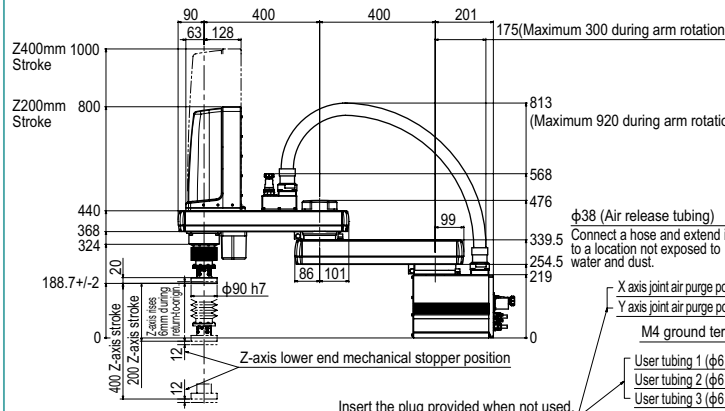
Working envelope of left-handed system



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°



φ25 H7 +0.021
0
φ90 h7 -0.035



Z axis tip shape

YK900XGP

Dust-proof & drip-proof type

- Arm length 900mm
- Maximum payload 20kg

Ordering method

YK900XGP		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 400: 400mm	F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.678**

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	Direct-coupled			
	Motor to speed reducer 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 cycle time: with 2kg payload ^{Note 2}		0.59 sec			
R-axis tolerable moment of inertia ^{Note 3}		1.0 kgm ²			
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: 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
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

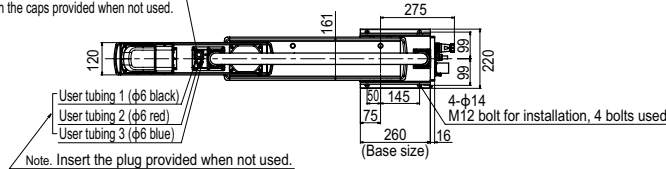
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
 See our robot manuals (installation manuals) for detailed information.

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.

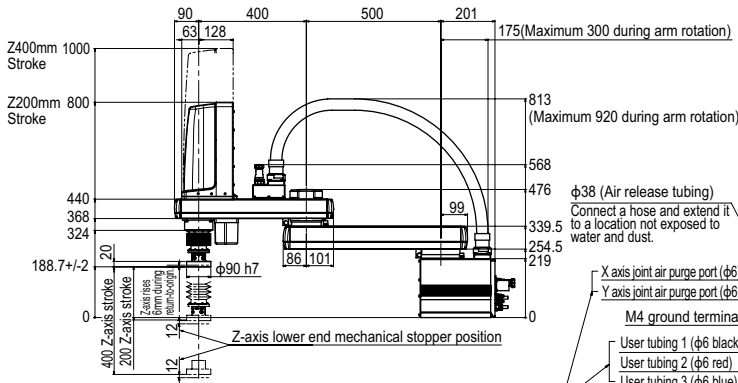
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
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YK900XGP

Connector for user wiring (No.1 to 20 usable, cable clamp size: φ16 to 18)
 Cover with the caps provided when not used.

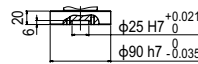
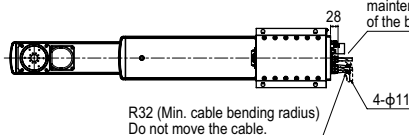


Note. Insert the plug provided when not used.

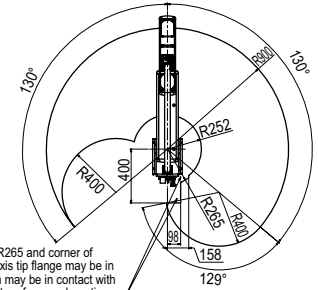


Insert the plug provided when not used.

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

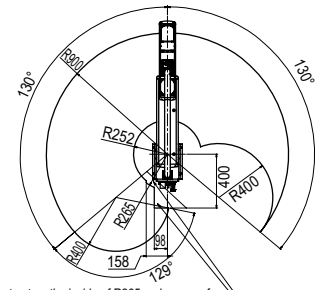


Z axis tip shape



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.

YK1000XGP

Dust-proof & drip-proof type

- Arm length 1000mm
- Maximum payload 20kg

Ordering method

YK1000XGP		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 400: 400mm	F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.678**

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	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
Repeatability <small>Note 1</small>		+/-0.02 mm		+/-0.01 mm	+/-0.004 °
	Maximum speed	10.6 m/sec		2.3 m/sec / 1.7 m/sec	920 °/sec
Maximum payload		20 kg			
Standard cycle time: with 2kg payload <small>Note 2</small>		0.59 sec			
R-axis tolerable moment of inertia <small>Note 3</small>		1.0 kgm ²			
Protection class <small>Note 4</small>		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: 60 kg Z axis 400 mm: 62 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

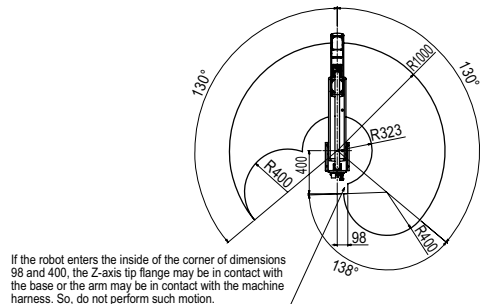
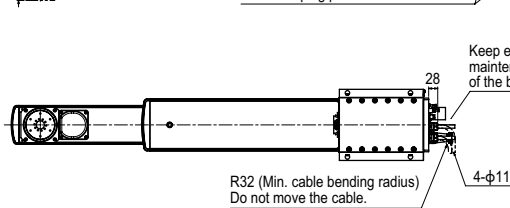
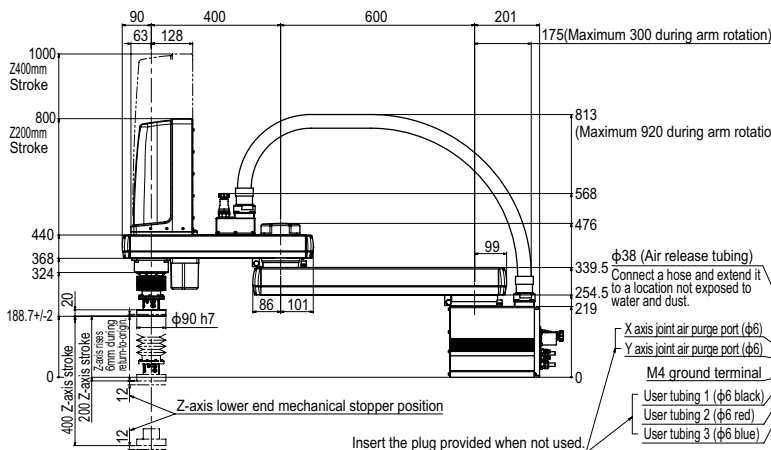
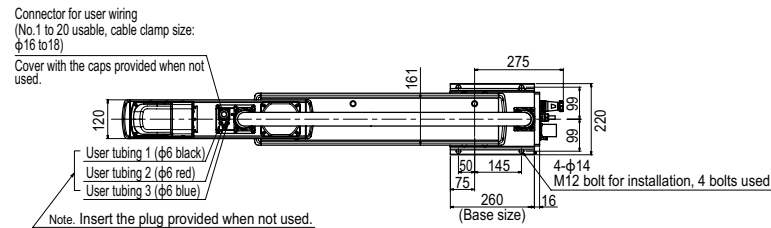
Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

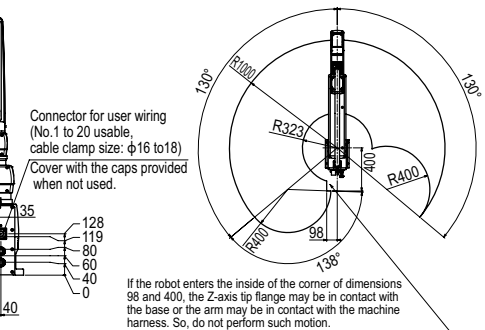
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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YK1000XGP



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°