

## YK-X Series

Product Lineup

YK-TW	Orbit type
YK-XG/YK-X	Completely beltless model <sup>Note</sup>
YK-XE	Low cost high performance model
YK-XGS	Wall mount/inverse model
YK-XGP	Dust-proof & drip-proof model

Note. Except for YK1200X

# SCARA ROBOTS

Arm length of 120 mm to 1200 mm, full-selection of lineup is top in the world. Completely beltless structure pursues the features of SCARA robots to their utmost limits.



Low cost high performance model  
YK400XE-4

### History of 40 years

The first YAMAHA robots were SCARA robots. Since the first SCARA robot called "CAME" was produced in 1979, some 40 years of SCARA robot innovations have continually appeared. These SCARA robots have undergone countless modifications in an ever changing marketplace and amassed a hefty record of successful products making them an essential part of the YAMAHA robot lineup.



1979  
<YK7000>

# Comprehensive line of YAMAHA SCARA robots

## Orbit type

P.392

- Arm length 350 mm / 500 mm
- Maximum payload 5 kg



YK500TW

## Extra small type

P.396

- Arm length 120 mm to 220 mm
- Maximum payload 1 kg



YK120XG/YK150XG/YK180XG



YK180X/YK220X

## Small type

P.401

- Arm length 250 mm to 400 mm
- Maximum payload 5 kg



YK250XG/YK350XG/YK400XG

## Medium type

P.408

- Arm length 500 mm to 600 mm
- Maximum payload 5 kg to 20 kg



YK500XGL



YK500XG



YK600XGL



YK600XG/XGH

## Low cost high performance model

P.405

- Arm length 400 mm to 710 mm
- Maximum payload 4 kg to 10 kg



YK400XE-4

YK610XE-10

YK710XE-10

## Large type

P.417

- Arm length 700 mm to 1200 mm
- Maximum payload 10 kg to 50 kg



YK700XG



YK900XG



YK1000XG



YK1200X

## Wall mount/inverse model

P.423

YK300XGS to YK1000XGS



Wall mount type



Inverse type

- Wall mount type

Type where the robot body is installed in the wall.

- Inverse type

Type where the wall mount type is installed upside down.

## Dust-proof & drip-proof model

P.433



YK250XGP/YK350XGP/YK400XGP  
YK500XGLP/YK600XGLP



YK500XGP to YK1000XGP

Plays active part in the working environment with a large amount of water or dust (protection class equivalent to IP65).

- Please consult YAMAHA for anti-droplet protection for fluids other than water.

## YK-TW Orbit type

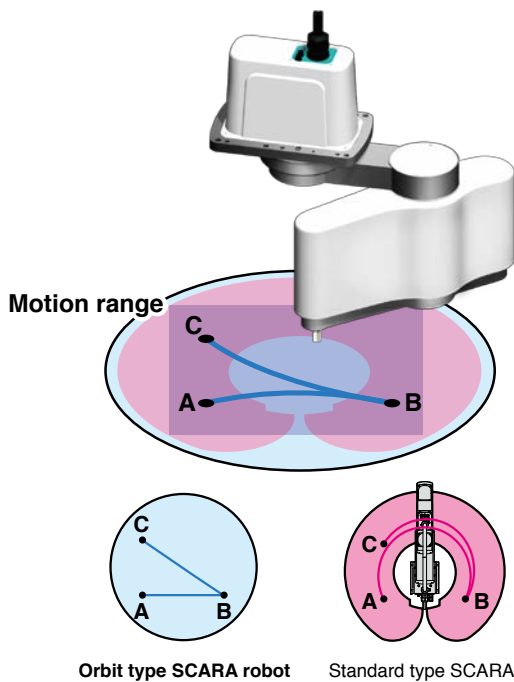
### YK-TW POINT 1

#### Layout design freedom

**User: We want a smaller equipment footprint.**

**YK-TW can move anywhere through the full  $\phi$  1000 mm <sup>Note 2</sup> work envelope.**

Featuring a ceiling-mount configuration with a wide arm rotation angle, the YK-TW can access any point within the full  $\phi$  1000 mm downward range. This eliminates all motion-related restrictions with regard to pallet and conveyor placement operations, while dramatically reducing the equipment footprint.



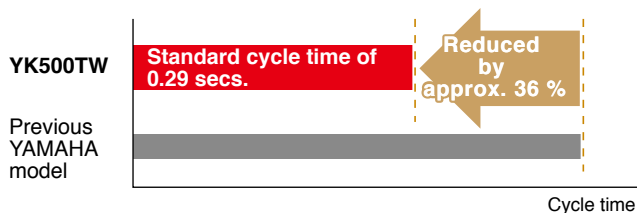
### YK-TW POINT 2

#### Higher productivity

**User: We need to reduce cycle time.**

**Standard cycle time of 0.29 secs. <sup>Note 2</sup>**

Y-axis (arm 2) passes beneath the X-axis (arm 1) and it has a horizontal articulated structure, allowing it to move along the optimal path between points. Moreover, the optimized weight balance of the internal components reduces the cycle time by 36 % as compared to previous models.



The standard cycle time for moving a 1-kg load horizontally 300 mm and up/down 25 mm is shortened by approximately 36 % compared to existing YAMAHA models.

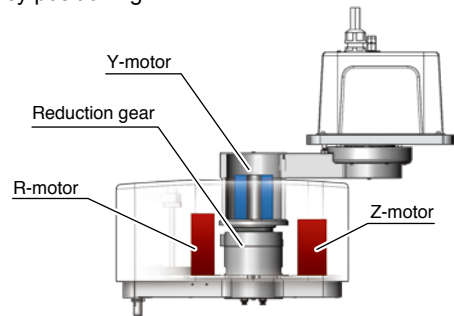
### YK-TW POINT 3

#### High quality

**User: We want a high precision assembly system.**

**YK-TW offers a repeated positioning accuracy of  $\pm 0.01$  mm <sup>Note 1</sup> (XY axes).**

Higher repeated positioning accuracy than that offered by a parallel-link robot. This was accomplished by optimizing the robot's weight balance through an extensive re-design of its internal construction. The lightweight yet highly rigid arm has also been fitted with optimally tuned motors to enable high accuracy positioning.



#### Hollow construction

Y-motor and reduction gear feature a hollow construction which allows them to be housed inside the harness arm.

**360° Rotation.**

#### Optimized rotation center of gravity moment

Weight balance was optimized by placing the R-motor and Z-motor at the left and right sides respectively.

**Reduced inertia enables high-speed motion.**

### YK-TW POINT 4

#### Suitable for a wide range of applications

**User: We need to move heavy workpieces at high speeds.**

**YK-TW handles payloads up to 5 kg.**

Handles loads up to 5 kg. Also accommodates arm-end tools which tend to be heavy, making it highly adaptable to various applications.

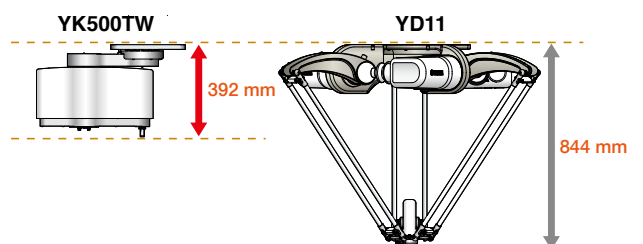
### YK-TW POINT 5

#### Smaller equipment footprint

**User: We want to reduce the height of our equipment.**

**YK-TW offers both a lower height and a smaller footprint.**

YK-TW height is only 392 mm. This compact size enables more freedom in the equipment layout design.



Note 1. Applies to the YK350TW    Note 2. Applies to the YK500TW

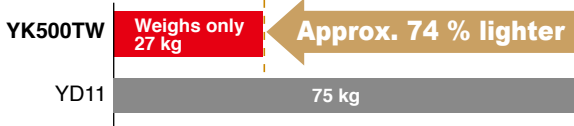
## YK-TW POINT 6

### Easy installation

User: Parallel-link robots require large frames which complicates installation...

YK-TW has a total height of only 392 mm, and weighs only 27 kg <sup>Note 2</sup>.

Lower inertia = Lighter frame



## YK-TW POINT 7

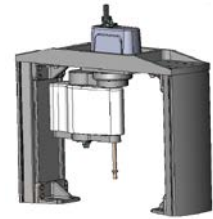
### Reduce the number of steps

User: Preparing the frame is extra work.

We can optionally provide a dedicated frame for the YK-TW.

With no need for complex calculations of strength, startup steps can be reduced.

Note. For details on dimensions and price, please contact Yamaha.

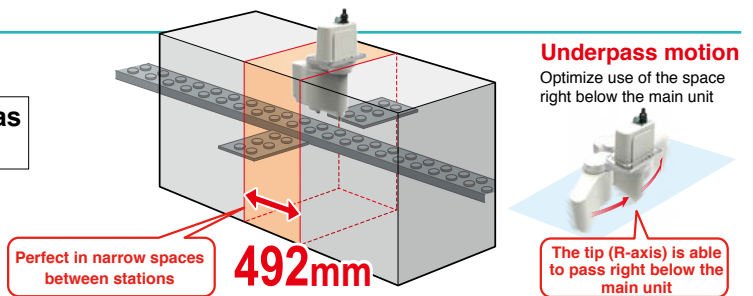


## YK-TW POINT 8

### Ideal for narrow space applications

User: We need to install in limited space, such as between equipment.

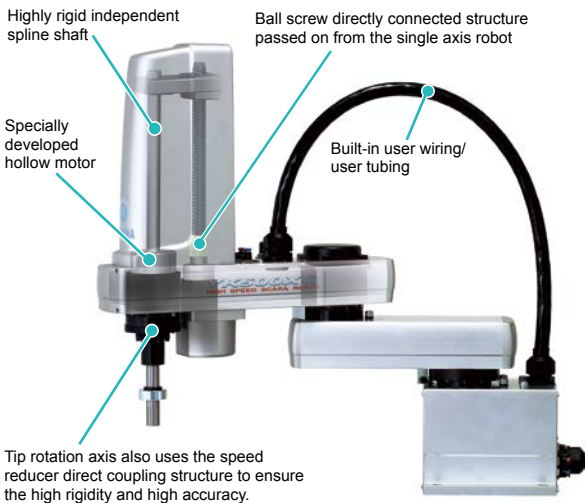
Minimum installation width 492mm <sup>Note 1</sup>



## YK-XG Completely beltless type

### Integral structure designed for optimal operation

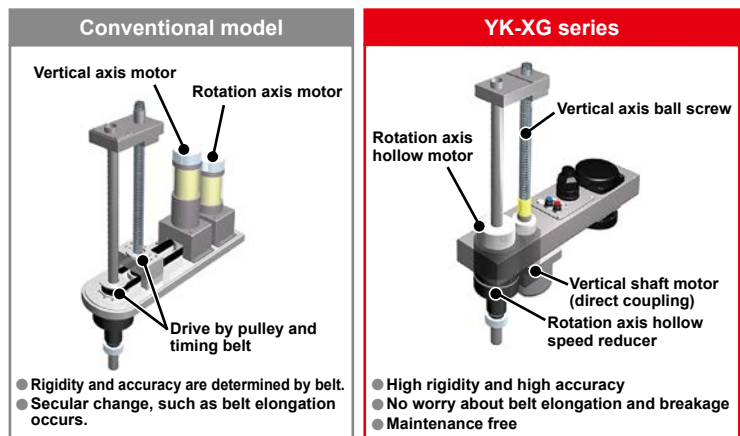
Note. The following shows an example of YK500XG.



## YK-XG POINT 1

### Completely beltless structure

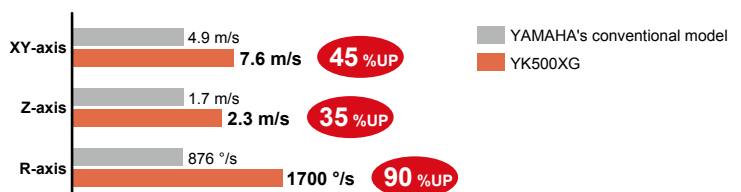
A completely beltless structure was achieved using a ZR-axis direct coupling structure. This completely beltless structure greatly reduces waste motion. This structure also maintains high accuracy for an extended period of time. Additionally, this structure ensures maintenance-free operation for an extended period of time without worrying about belt breakage, elongation, or secular deterioration (except for Orbit type and large type).



## YK-XG POINT 2

### High speed

The standard cycle time is fast. Additionally, YAMAHA also places special emphasis on the tact time in the practical working area. The speed reduction ratio or maximum motor RPM was reviewed to greatly improve the maximum speed. This contributes to improvement of the tact time.





YK-XG POINT 3

Resolver is used for position detector.



As the resolver uses a simple and rigid structure without using electronic components and optical elements, it features high environment resistance and low failure ratio. Detection problems due to electronic component breakdown, dew condensation on or oil sticking to the disk that may occur in optical encoders do not occur in the resolver due to its structure. Additionally, as **the absolute specifications and incremental specifications use the same mechanical specifications and common controller**, the specifications can be changed only by setting parameters. Furthermore, even when the absolute battery is consumed completely, the robot can still operate as the incremental specifications. So, even if a trouble occurs, the line stop is not needed to ensure the safe production line. The backup circuit has been completely renovated and now has a backup period of one year in the non-energizing state.

Note. The resolver has a simple structure without using electronic components. So, the resolver is highly resistant to low and high temperatures, impacts, electrical noise, dust particles, and oil, etc., and is used in automobiles, trains, and aircrafts that particularly require the reliability.

**Optical encoder**



- Optical type
- Electronic components are required and structure is complicated.
- Electronic component malfunction, or dew condensation on or oily content sticking to disk may occur easily.

▼

**Detection failure**

**Resolver**



- Magnetic type
- Simple structure only with iron core and winding has less potential failure factors.
- Immune to shock and electric noise.

▼

**High reliability**

YK-XG POINT 4

Excellent maintenance ability

The covers of YAMAHA SCARA robot YK-XG series can be removed forward or upward. The cover is separated from the cable, so the maintenance work is easy. Additionally, the grease replacement of the speed reducer needs many steps to disassemble the gear and may cause positional deviation. However, since the speed reducer of the YAMAHA SCARA robot uses long-life grease, the grease replacement is not needed.

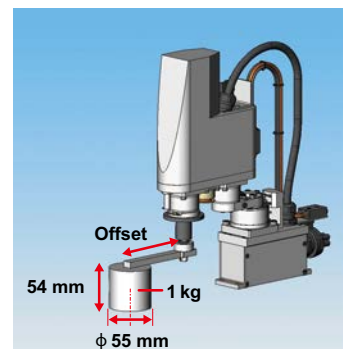
YK-XG POINT 5

Surprising R-axis tolerable moment of inertia

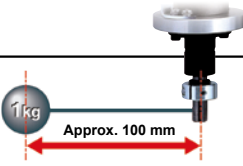
The SCARA robot performance cannot be expressed only by the standard cycle time. In actual operating environments, there are various workpieces, such as heavy workpiece or workpiece with large offset. At this time, since the robot with low R-axis tolerable moment of inertia needs to decrease the speed during operation, the cycle time decreases greatly. All YAMAHA SCARA robot YK-XG types have the tip rotation axis directly coupled to the speed reducer. Since the R-axis tolerable moment of inertia is very high when compared to a general structure in which the moment of inertia is transmitted by a belt after decelerating, the robot can operate at a high speed even with workpieces that have been offset.

R-axis tolerable moment of inertia: Comparison between YK120XG and other company's model

When the offset from the R-axis to the center of gravity of the load is large, the inertia becomes large and the acceleration during operation is restricted. The R-axis tolerable moment of inertia of YAMAHA XG series is exceedingly large when compared to other company's SCARA robots in the similar class, so it can operate at a high speed even in the offset state.



**YK120XG**  
(R-axis tolerable moment of inertia: 0.1 kgfcm<sup>2</sup>)



When the tip load weight is 1 kg, it is possible to operate at **approx. 100 mm** offset.

When the load weight is 1 kg (refer to the right in the figure.)

Offset (mm)	Inertia (kgfcm <sup>2</sup> )	Operation	
		YK120XG	Company A
0	0.0039	○	○
45	0.025	○	×
97	0.1	○	×

○: Operable    ×: Out of catalog value tolerance range

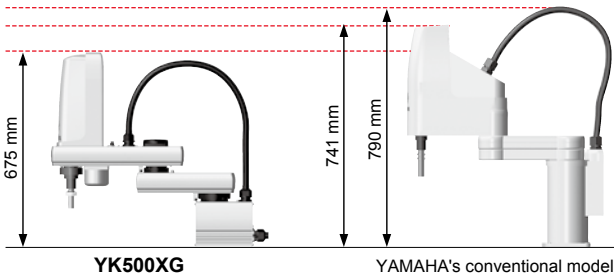
◆ R-axis tolerable moment of inertia: YK120XG ..... 0.1 kgfcm<sup>2</sup>

Company A ..... 0.0039 kgfcm<sup>2</sup>

## YK-XG POINT 6

### Compact

As the cable layout is changed, the cable height becomes lower than the main body cover. Additionally, use of extruded material base and motor with low overall height achieves the lowest overall height in the same class.



## YK-XG POINT 7

### Hollow shaft and tool flange options are selectable.

Hollow shaft that allows easy wiring to the tip tool and tool flange for tool mounting are provided as options.



Hollow shaft option convenient for routing of air tubes and harness wires

Note. YK250XG to YK400XG  
YK500XGL/YK600XGL



Tool flange option for easy mounting of a tool to the tip

Note. YK250XG to YK1000XG

## YK-XG POINT 8

### Zone control (= Optimal acceleration/deceleration automatic setting) function

In the SCARA robot, the load applied to the motor and speed reducer in the arm folded state greatly differs from that in the arm extended state. YAMAHA SCARA robot **automatically selects** optimal acceleration and deceleration from the arm postures at operation start and operation end. Therefore, the robot does not exceed the tolerance value of **the motor peak torque** or **speed reducer allowable peak torque** only by entering the initial payload. So, full power can be extracted from the motor whenever needed and high acceleration/deceleration are maintained.

#### For X-axis of YK500XG

The torque in the arm folded state is 5 or more times different from that in the arm extended state.

**This may greatly affect the service life, vibration during operation, and controllability.**

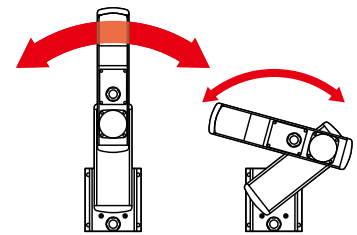
If the motor torque exceeds the peak value

→ **This may adversely affect the controllability and mechanical vibration, etc.**

If the torque exceeds the tolerable peak torque value of the speed reducer

→ **This may cause early breakage or shorten the service life extremely.**

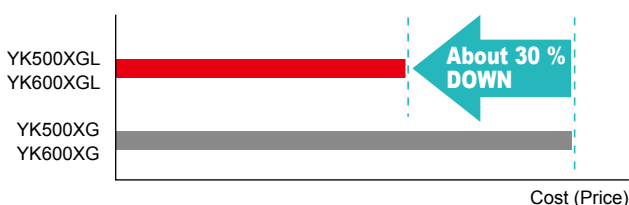
**Robot stops at a desired position accurately to ensure long service life.**



## YK-XG POINT 9

### Low price models with the arm length 500 mm/600 mm specifications are also added to the product lineup.

The customers require to use SCARA robots at a more affordable price. Models YK500XGL/YK600XGL were developed to meet these customer's requests. About 30 %-cost reduction was achieved when compared to the conventional models YK500XG/600XG.



## YK-XE Low cost high performance model

### YK-XE POINT 1

#### New addition of higher payload models to YK-XE series

In addition to existing 400 mm horizontal arm reach YK400-XE, models with 10 kg payload capacity and 610 mm and 710 mm arm reach are added to YK-XE lineup.

### YK-XE POINT 2

#### Improvement of productivity by high-speed operation

By reviewing the arm structure, the vibration is reduced and the motion is optimized to shorten the standard cycle time. High-speed, less-vibration, and agile operation contributes to improvement of the productivity.

### YK-XE POINT 3

#### Aordable Price and Improved Performance

Both the high operation performance and affordable price are achieved. Production equipment with high cost performance can be constructed.

## YK-XGS Wall mount/inverse model

#### Hanging type is renewed. Completely beltless structure and high rigidity

As the conventional hanging type is changed to the wall mount type, the flexibility of the system design is improved. The production equipment can be downsized. Additionally, as an inverse type that allows upward operation is also added to the product lineup, the flexibility of the working direction is widened. Furthermore, use of a completely beltless structure achieves a maximum payload of 20 kg and a R-axis tolerable moment of inertia of 1 kgm<sup>2</sup>Note that are the top in the class. A large hand can also be installed. So, this robot is suitable for heavy load work.

Note. YK700XGS to YK1000XGS



## YK-XGP Dust-proof & drip-proof model

#### Up/down bellows structure improves the dust-proof and drip-proof performance.

The dust-proof and drip-proof type that can be operated even in a work environment where water or particle dust scatters was renewed to a completely beltless structure. The belt does not deteriorate and poor environment resistance is improved. Additionally, an up/down bellows structure is used to improve the dust-proof and drip-proof performance.

Note. YK250XGP to YK600XGLP



### Protection class equivalent to IP65 (IEC60529)

Seals are added to the joints to maintain the dust-proof and drip-proof performance without air purging. The robot conforms to the protection class equivalent to IP65 (IEC60529).

**IP 65** - Class of protection against invasion of water: 5  
 Water injected from any direction does not affect adversely.  
 The standard pressure of the injected water is 30 KPa (30 KN/m<sup>2</sup>, 0.3 kgf/cm).  
 The injection speed is 12.5 liters/min. and the injection time is 3 min.  
 Note. The water injected under conditions exceeding those shown above may enter the unit.  
**Class of protection against solid objects: 6**  
 No invasion of particle dust.

### Dust-proof and drip-proof connector for user wiring is provided as standard.



YK250XGP to 600XGLP (arm part)



YK250XGP to 600XGLP (base part)

Model/Type		Model	Arm length (mm)	Maximum payload (kg)	Standard cycle time (sec.)	Page
<b>Orbit type</b>		YK350TW	350	5.0	0.32	P.392
		YK500TW	500	5.0	0.29	P.394
<b>Standard</b>	<b>Extra small type</b>	YK120XG	120	1.0	0.33	P.396
		YK150XG	150	1.0	0.33	P.397
		YK180XG	180	1.0	0.33	P.398
		YK180X	180	1.0	0.39	P.399
		YK220X	220	1.0	0.42	P.400
	<b>Small type</b>	YK250XG	250	5.0	0.43	P.401
		YK350XG	350	5.0	0.44	P.403
		YK400XE-4	400	4.0	0.41	P.405
		YK400XG	400	5.0	0.45	P.406
	<b>Medium type</b>	YK500XGL	500	5.0	0.48	P.408
		YK500XG	500	10.0	0.42	P.410
		YK610XE-10	610	10.0	0.39	P.411
		YK600XGL	600	5.0	0.54	P.412
		YK600XG	600	10.0	0.43	P.414
		YK600XGH	600	20.0	0.47	P.415
	<b>Large type</b>	YK710XE-10	710	10.0	0.42	P.416
		YK700XGL	700	10.0	0.50	P.417
		YK700XG	700	20.0	0.42	P.418
		YK800XG	800	20.0	0.48	P.419
		YK900XG	900	20.0	0.49	P.420
YK1000XG		1000	20.0	0.49	P.421	
YK1200X		1200	50.0	0.91	P.422	
<b>Wall mount/inverse model</b>		YK300XGS	300	5.0	0.49	P.423
		YK400XGS	400	5.0	0.49	P.425
		YK500XGS	500	10.0	0.45	P.427
		YK600XGS	600	10.0	0.46	P.428
		YK700XGS	700	20.0	0.42	P.429
		YK800XGS	800	20.0	0.48	P.430
		YK900XGS	900	20.0	0.49	P.431
<b>Dust-proof &amp; drip-proof model</b>		YK250XGP	250	4.0	0.50	P.433
		YK350XGP	350	4.0	0.52	P.435
		YK400XGP	400	4.0	0.50	P.437
		YK500XGLP	500	4.0	0.66	P.439
		YK500XGP	500	10.0	0.55	P.441
		YK600XGLP	600	4.0	0.71	P.442
		YK600XGP	600	10.0	0.56	P.444
		YK600XGHP	600	18.0	0.57	P.445
		YK700XGP	700	20.0	0.52	P.446
		YK800XGP	800	20.0	0.58	P.447
		YK900XGP	900	20.0	0.59	P.448
		YK1000XGP	1000	20.0	0.59	P.449

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)



# SCARA ROBOTS

# YK-X

## SERIES

- Articulated robots  
YA
- Linear conveyor modules  
LCM100
- 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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<p><b>SMALL TYPE</b></p> <ul style="list-style-type: none"> <li>YK250XG ..... 401</li> <li>YK350XG ..... 403</li> <li>YK400XE-4 ..... 405</li> <li>YK400XG ..... 406</li> </ul>	<p><b>DUST-PROOF &amp; DRIP-PROOF TYPE</b></p> <ul style="list-style-type: none"> <li>YK250XGP ..... 433</li> <li>YK350XGP ..... 435</li> <li>YK400XGP ..... 437</li> <li>YK500XGLP ..... 439</li> <li>YK500XGP ..... 441</li> <li>YK600XGLP ..... 442</li> <li>YK600XGP ..... 444</li> </ul>	
<p><b>MEDIUM TYPE</b></p> <ul style="list-style-type: none"> <li>YK500XGL ..... 408</li> <li>YK500XG ..... 410</li> <li>YK610XE-10 ..... 411</li> <li>YK600XGL ..... 412</li> <li>YK600XG ..... 414</li> </ul>		



# YK-X SPECIFICATION SHEET

Type	Model	Arm length (mm) and XY axis resultant maximum speed (m/s)												Standard cycle time (sec) <small>Note 1</small>	Maximum payload (kg)	R-axis tolerable moment of inertia (kgm <sup>2</sup> )	Completely beltless structure <small>Note 2</small>	Detailed info page				
		120	150	180	220	250	300	350	400	500	600	700	800						900	1000	1200	
Orbit type	YK350TW	5.6												0.32	5.0	0.005 (Rated) 0.05 (Maximum)		<a href="#">P.392</a>				
	YK500TW	6.8												0.29	5.0	0.005 (Rated) 0.05 (Maximum)		<a href="#">P.394</a>				
Standard	Extra small type	YK120XG	3.3															0.33	1.0	0.01	●	<a href="#">P.396</a>
		YK150XG	3.4															0.33	1.0	0.01	●	<a href="#">P.397</a>
		YK180XG	3.3															0.33	1.0	0.01	●	<a href="#">P.398</a>
		YK180X	3.3															0.39	1.0	0.01	●	<a href="#">P.399</a>
		YK220X	3.4															0.42	1.0	0.01	●	<a href="#">P.400</a>
		YK250XG	4.5															0.43	5.0	0.05	●	<a href="#">P.401</a>
	Small type	YK350XG	5.6												0.44	5.0	0.05	●	<a href="#">P.403</a>			
		YK400XE-4	6.0												0.41	4.0	0.05		<a href="#">P.405</a>			
		YK400XG	6.1												0.45	5.0	0.05	●	<a href="#">P.406</a>			
		YK500XGL	5.1												0.48	5.0	0.05	●	<a href="#">P.408</a>			
	Medium type	YK500XG	7.6												0.42	10.0	0.30	●	<a href="#">P.410</a>			
		YK610XE-10	8.6												0.39	10.0	0.30	●	<a href="#">P.411</a>			
		YK600XGL	4.9												0.54	5.0	0.05	●	<a href="#">P.412</a>			
		YK600XG	8.4												0.43	10.0	0.30	●	<a href="#">P.414</a>			
		YK600XGH	7.7												0.47	20.0	1.0	●	<a href="#">P.415</a>			
	Large type	YK710XE-10	9.5												0.42	10.0	0.30		<a href="#">P.416</a>			
		YK700XGL	9.2												0.50	10.0	0.30	●	<a href="#">P.417</a>			
		YK700XG	8.4												0.42	20.0	1.0	●	<a href="#">P.418</a>			
YK800XG		9.2												0.48	20.0	1.0	●	<a href="#">P.419</a>				
YK900XG		9.9												0.49	20.0	1.0	●	<a href="#">P.420</a>				
YK1000XG		10.6												0.49	20.0	1.0	●	<a href="#">P.421</a>				
YK1200X		7.4												0.91	50.0	2.45		<a href="#">P.422</a>				
Wall mount / inverse type	YK300XGS	4.4												0.49	5.0	0.05	●	<a href="#">P.423</a>				
	YK400XGS	6.1												0.49	5.0	0.05	●	<a href="#">P.425</a>				
	YK500XGS	7.6												0.45	10.0	0.3	●	<a href="#">P.427</a>				
	YK600XGS	8.4												0.46	10.0	0.3	●	<a href="#">P.428</a>				
	YK700XGS	8.4												0.42	20.0	1.0	●	<a href="#">P.429</a>				
	YK800XGS	9.2												0.48	20.0	1.0	●	<a href="#">P.430</a>				
	YK900XGS	9.9												0.49	20.0	1.0	●	<a href="#">P.431</a>				
	YK1000XGS	10.6												0.49	20.0	1.0	●	<a href="#">P.432</a>				
Dust-proof & drip-proof type	YK250XGP	4.5												0.50	4.0	0.05	●	<a href="#">P.433</a>				
	YK350XGP	5.6												0.52	4.0	0.05	●	<a href="#">P.435</a>				
	YK400XGP	6.1												0.50	4.0	0.05	●	<a href="#">P.437</a>				
	YK500XGLP	5.1												0.66	4.0	0.05	●	<a href="#">P.439</a>				
	YK500XGP	7.6												0.55	10.0	0.3	●	<a href="#">P.441</a>				
	YK600XGLP	4.9												0.71	4.0	0.05	●	<a href="#">P.442</a>				
	YK600XGP	8.4												0.56	10.0	0.3	●	<a href="#">P.444</a>				
	YK600XGHP	7.7												0.57	18.0	1.0	●	<a href="#">P.445</a>				
	YK700XGP	8.4												0.52	20.0	1.0	●	<a href="#">P.446</a>				
	YK800XGP	9.2												0.58	20.0	1.0	●	<a href="#">P.447</a>				
	YK900XGP	9.9												0.59	20.0	1.0	●	<a href="#">P.448</a>				
	YK1000XGP	10.6												0.59	20.0	1.0	●	<a href="#">P.449</a>				

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.566**

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 F	None With tool flange	No entry S	None With hollow shaft	2L 2m 3L 3.5m 5L 5m 10L 10m		<b>RCX340</b>

Note 1. Available only for the master.

# Robot ordering method terminology

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

Articulated robots  
YA  
Linear conveyor modules  
LCM100  
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

# YK350TW

Orbit type



- Arm length 350mm
- Maximum payload 5kg

## Ordering method

**YK350TW-130**

**RCX340-4**

<b>Model</b>	<b>Z axis stroke</b> 130: 130mm	<b>Tool flange</b> No entry: None F: With tool flange	<b>Hollow shaft</b> No entry: None S: With hollow shaft	<b>Cable</b> 3L: 3.5m 5L: 5m 10L: 10m	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>
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Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

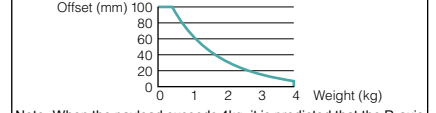
Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	175 mm	175 mm	175 mm	130 mm	-
	Rotation angle	+/-225 °	+/-225 °	-	+/-720 °
	AC servo motor output	750 W	400 W	200 W	105 W
Deceleration mechanism	Transmission method	Timing belt	Direct-coupled	Timing belt	Timing belt
	Motor to speed reducer	Timing 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 <sup>2</sup>			
	Maximum	0.05 kgm <sup>2</sup>			
User wiring		0.15 sq × 8 wires			
User tubing (Outer diameter)		φ 6 × 2			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		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)

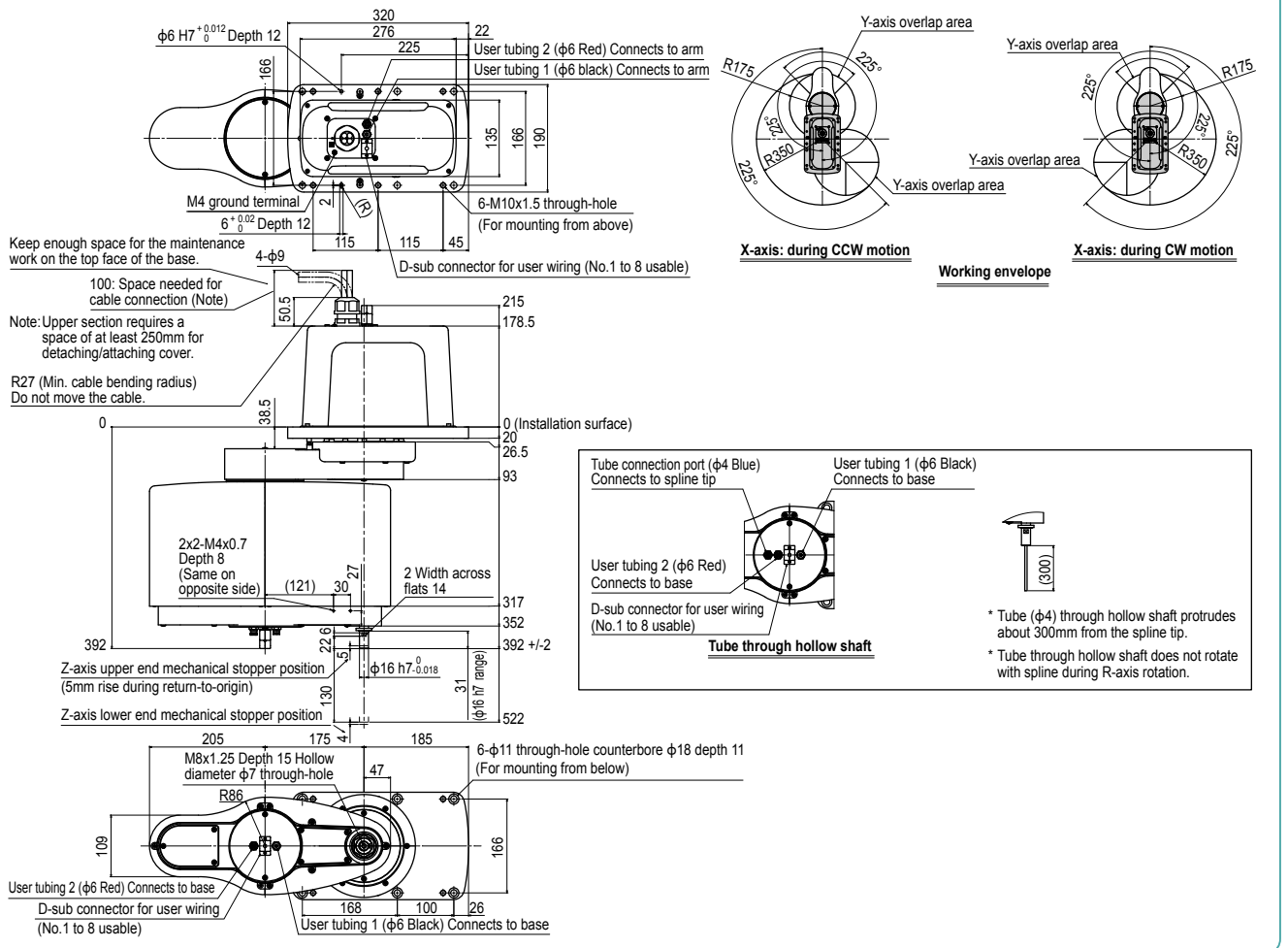


Note. When the payload exceeds 4kg, it is predicted that the R-axis moment of inertia may exceed the rated value. So, make proper parameter setting.

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





# 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 (OPA)	Option B (OPB)	Option C (OPC)	Option D (OPD)	Option E (OPE)	Absolute battery
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Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

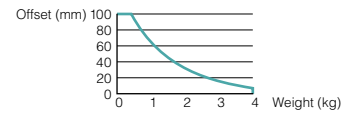
		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	250 mm	250 mm	130 mm	-
	Rotation angle	+/-225 °	+/-225 °	-	+/-720 °
AC servo motor output		750 W	400 W	200 W	105 W
Deceleration mechanism	Transmission method	Timing belt	Direct-coupled	Timing belt	Timing belt
	Motor to speed reducer				
Speed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

- Note 1. This is the value at a constant ambient temperature.  
 Note 2. For the option specifications (tool flange mount type), the maximum payload becomes 4 kg.  
 Note 3. When moving a 1 kg load back and forth 300 mm horizontally and 25 mm vertically (rough positioning arch motion).  
 Note 4. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

## Controller

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

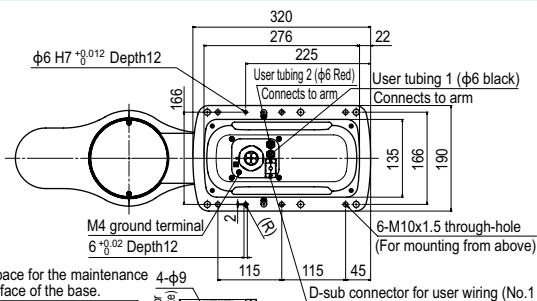
**R-axis moment of inertia (load inertia)**  
 Recommended positional relationship between the load weight and the offset amount from the center of the R-axis (center of gravity position)



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

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

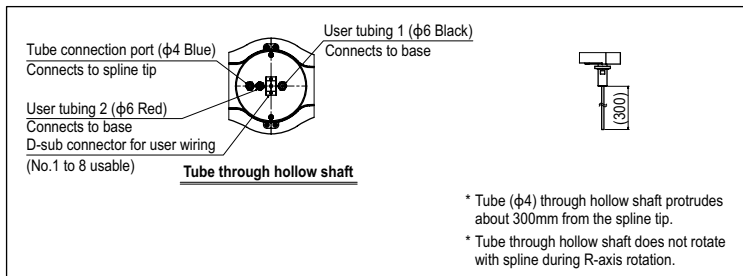
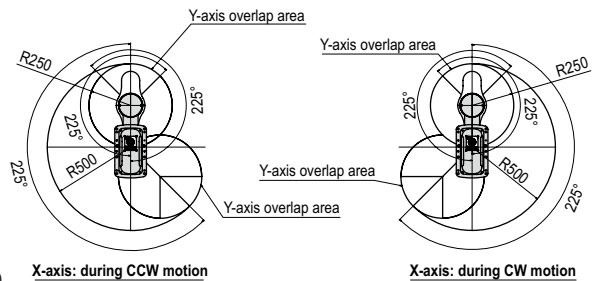
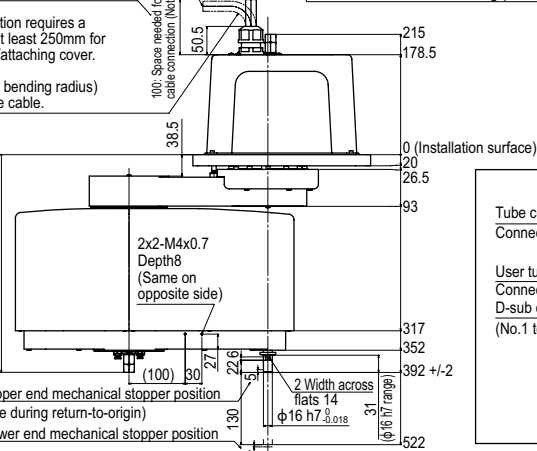
## YK500TW



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.

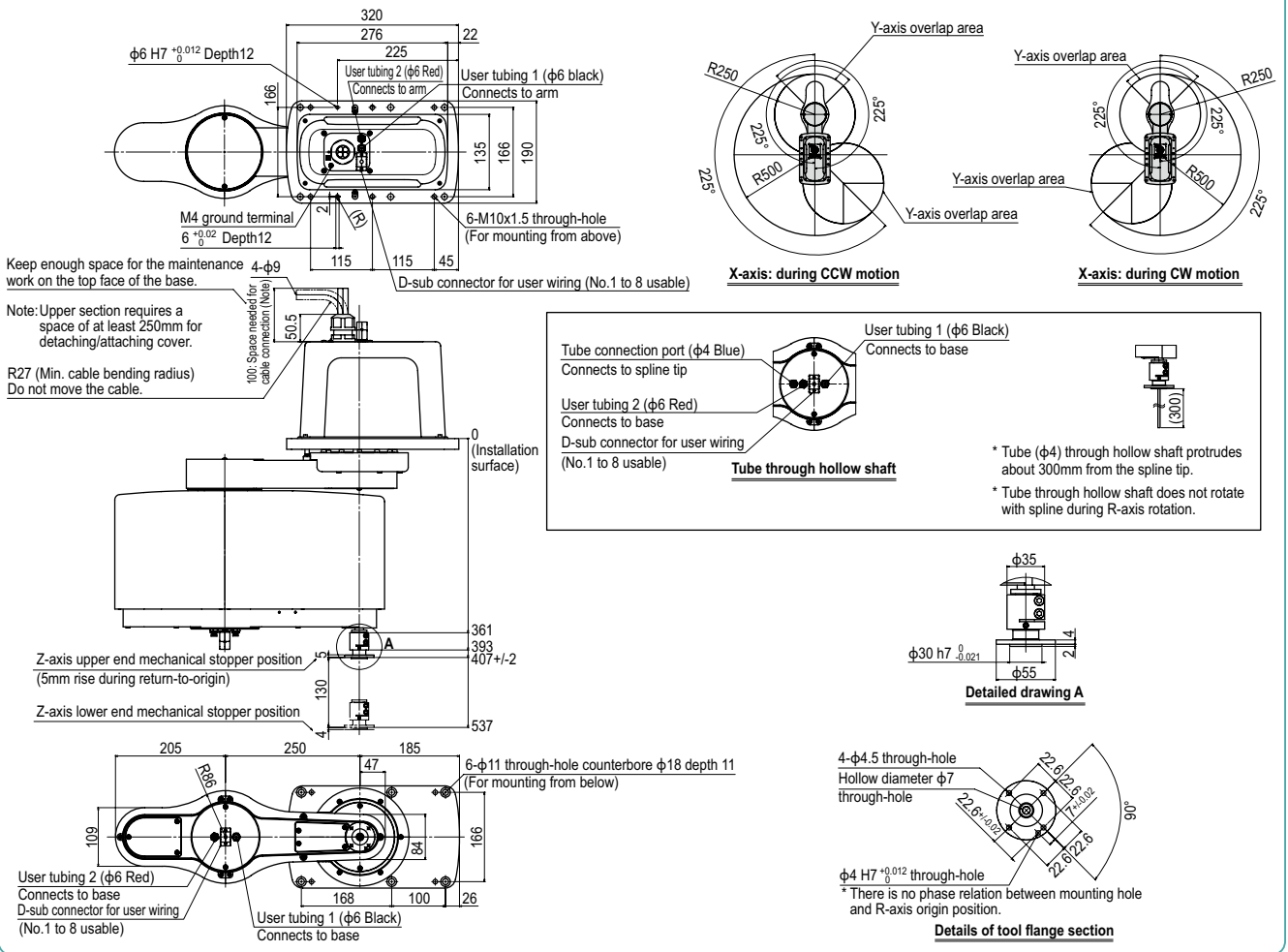
R27 (Min. cable bending radius) Do not move the cable.



- \* 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.



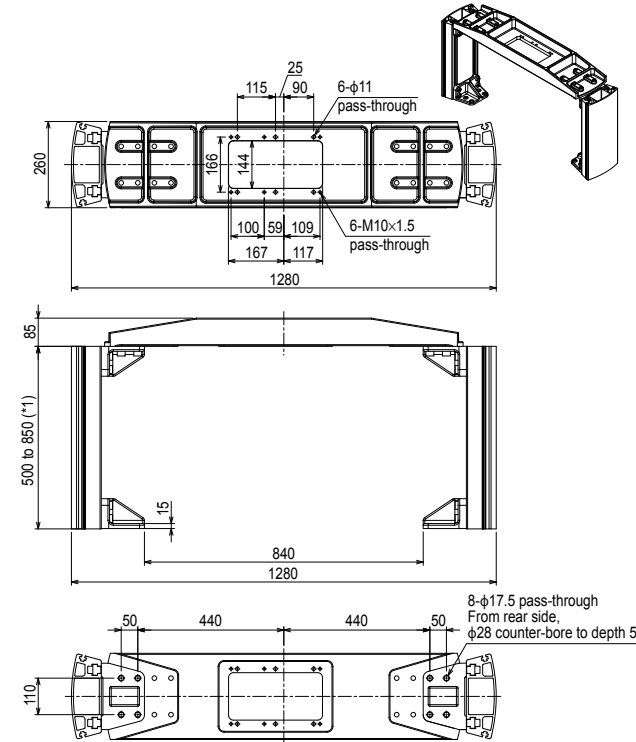
YK500TW Tool flange mount type



■ 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.

\*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

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

- Articulated robots
- YA
- Linear conveyor modules
- LCM100
- 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 type
- Small / Medium type
- Large type
- Wall mount / Inverse type
- Dust-proof & drip-proof type

# 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
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Specify various controller setting items. RCX340 ▶ **P.566**

## 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			
Repeatability	Speed reducer to output	Direct-coupled			
	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		0.33 sec			
R-axis tolerable moment of inertia		0.01 kgm <sup>2</sup>			
User wiring		0.1 sq × 8 wires			
User tubing (Outer diameter)		φ 4 × 2			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 2 m Option: 3.5 m, 5 m, 10 m			
Weight (Excluding robot cable)		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

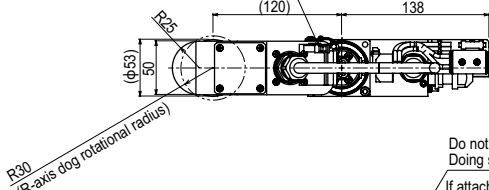
Controller	Power capacity (VA)	Operation method
RCX340	300	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

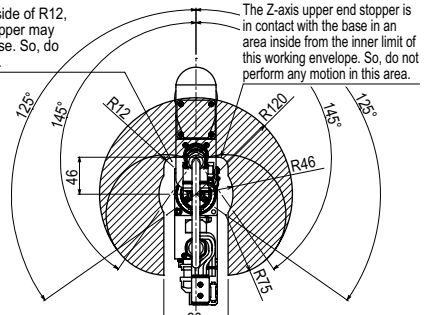
Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot/>

## 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.



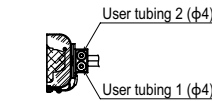
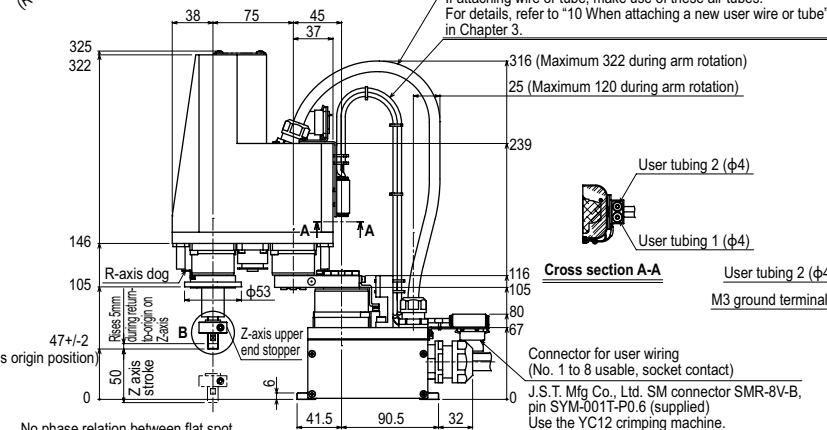
If the robot enters the inside of R12, the Z-axis upper end stopper may be in contact with the base. So, do not perform such motion.



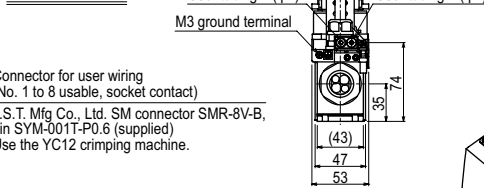
### Working envelope

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.

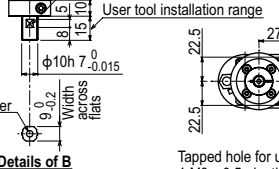
Do not attach any wire or tube to self-supporting cable. Doing so may degrade positioning accuracy.  
 If attaching wire or tube, make use of these air tubes. For details, refer to "10 When attaching a new user wire or tube" in Chapter 3.



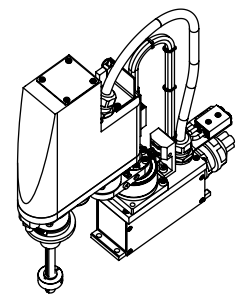
### Cross section A-A



No phase relation between flat spot and R-axis origin  
 User tool installation range



Tapped hole for user 4-M3 × 0.5, depth: 7  
 R27 (Min. cable bending radius) Do not move the cable.  
 Use four M5 mounting bolt.  
 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**

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.566**

## 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 <sup>Note 1</sup>		+/-0.01 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		3.4 m/sec	0.9 m/sec	1700 °/sec	
Maximum payload		1.0 kg			
Standard cycle time: with 0.1kg payload <sup>Note 2</sup>		0.33 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		0.01 kgm <sup>2</sup>			
User wiring		0.1 sq × 8 wires			
User tubing (Outer diameter)		φ 4 × 2			
Travel limit		1. Soft limit 2. Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 2 m Option: 3.5 m, 5 m, 10 m			
Weight (Excluding robot cable) <sup>Note 4</sup>		4.0 kg			
Robot cable weight		0.9 kg (2 m)	1.5 kg (3.5 m)	2.1 kg (5 m)	4.2 kg (10 m)

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

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

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

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

## Controller

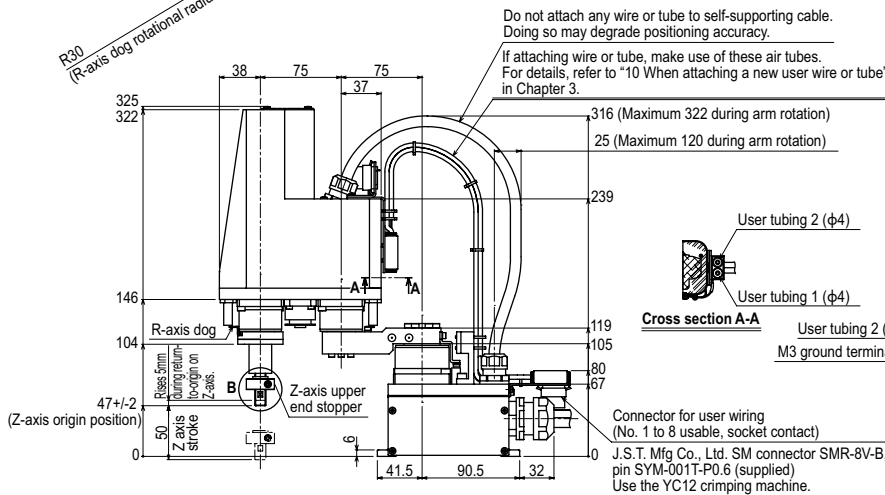
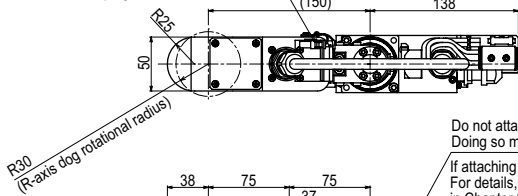
Controller	Power capacity (VA)	Operation method
RCX340	300	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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

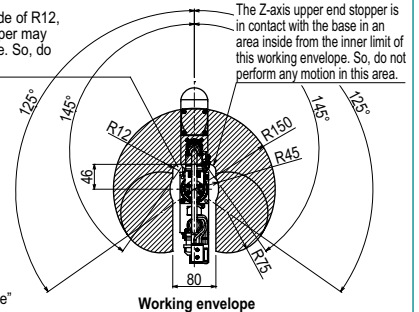
Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<https://global.yamaha-motor.com/business/robot/>

## YK150XG

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.



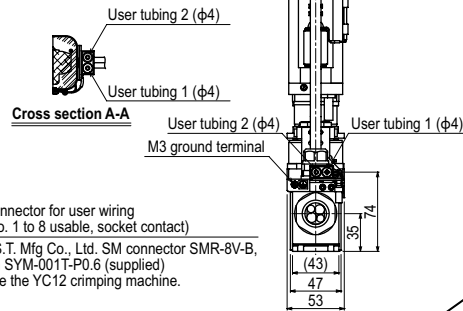
If the robot enters the inside of R12, the Z-axis upper end stopper may be in contact with the base. So, do not perform such motion.



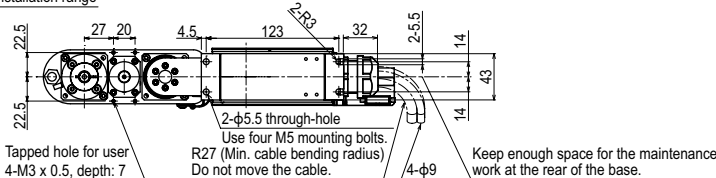
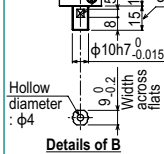
### Working envelope

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.

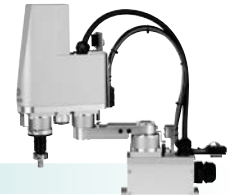


No phase relation between flat spot and R-axis origin  
User tool installation range



# 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.566**

## 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 <sup>Note 1</sup>		+/-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 <sup>Note 2</sup>		0.33 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		0.01 kgm <sup>2</sup>			
User wiring		0.1 sq x 8 wires			
User tubing (Outer diameter)		φ 4 x 2			
Travel limit		1. Soft limit 2. Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 2 m Option: 3.5 m, 5 m, 10 m			
Weight (Excluding robot cable) <sup>Note 4</sup>		4.1 kg			
Robot cable weight		0.9 kg (2 m)	1.5 kg (3.5 m)	2.1 kg (5 m)	4.2 kg (10 m)

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

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

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

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

## Controller

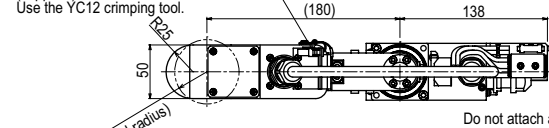
Controller	Power capacity (VA)	Operation method
RCX340	500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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

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

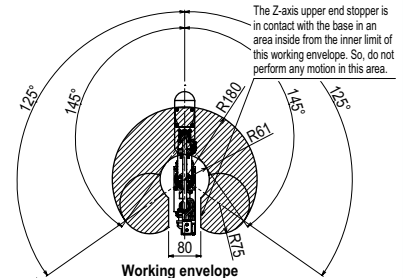
## YK180XG

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



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

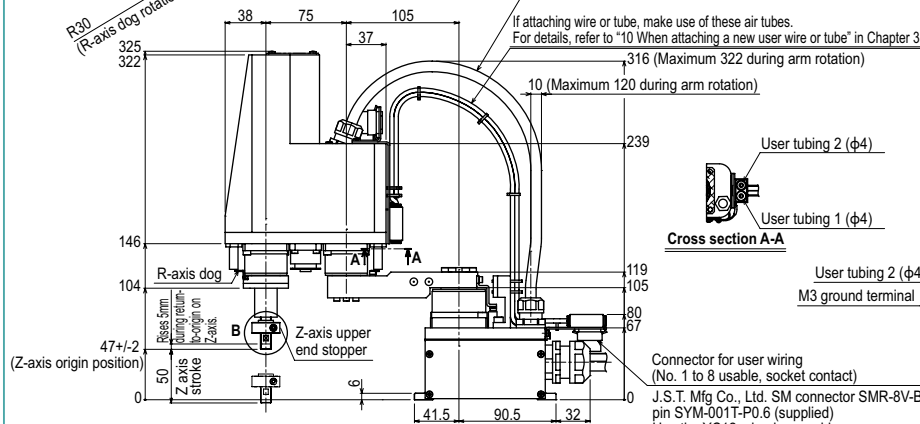
If attaching wire or tube, make use of these air tubes.  
For details, refer to "10 When attaching a new user wire or tube" in Chapter 3.



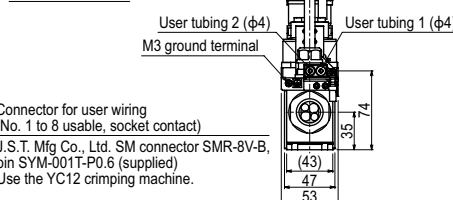
### Working envelope

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

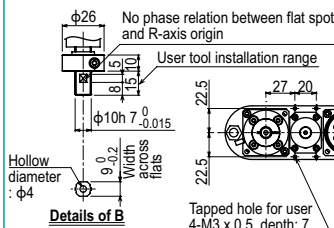
When performing return-to-origin, move the axes counterclockwise in advance from the position shown above.



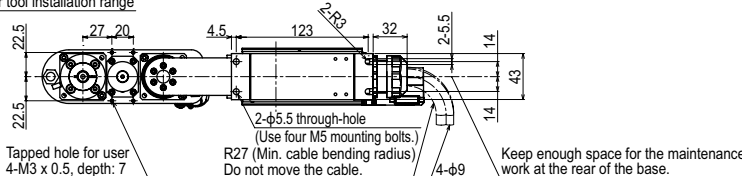
### Cross section A-A



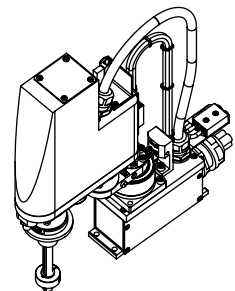
Connector for user wiring  
(No. 1 to 8 usable, socket contact)  
J.S.T. Mfg Co., Ltd. SM connector SMR-8V-B,  
pin SYM-001T-P0.6 (supplied)  
Use the YC12 crimping machine.



### Details of B



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



# 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.566**

## 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 <sup>Note 1</sup>		+/-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 <sup>Note 2</sup>		0.39 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		0.01 kgm <sup>2</sup>			
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) <sup>Note 4</sup>		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

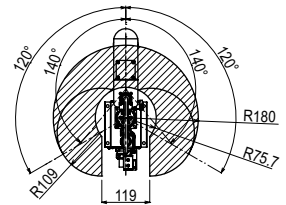
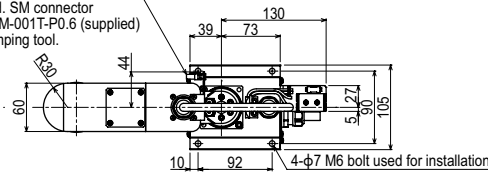
Controller	Power capacity (VA)	Operation method
RCX340	500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
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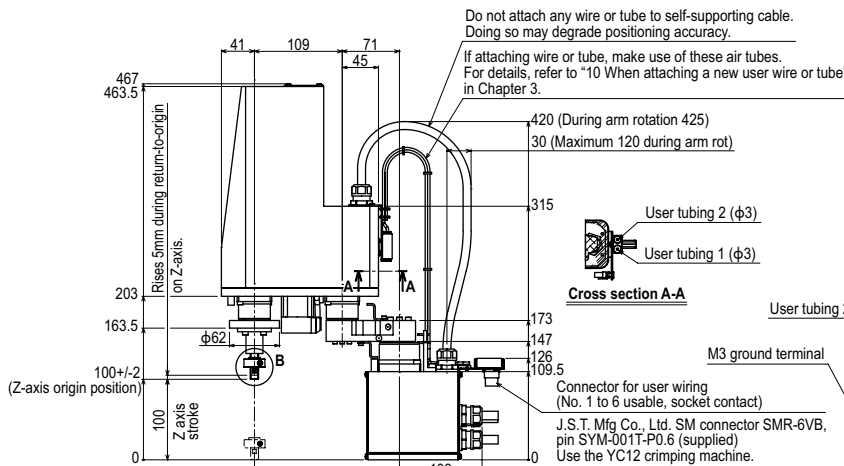
## YK180X

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.

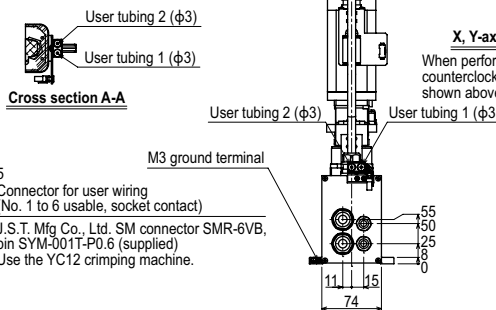


### Working envelope

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

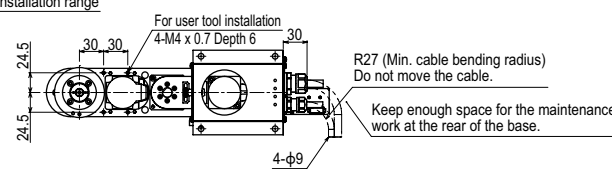
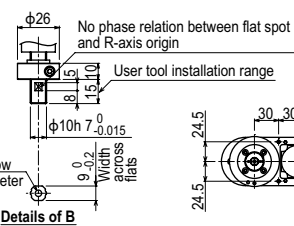


### Cross section A-A



### X, Y-axis origin position

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



- Articulated robots  
YA
- Linear conveyor modules  
LCM100
- Motor-less single axis reducer  
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**

**RCX340-4**

Model	Z axis stroke	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
	100: 100mm	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.566**

## 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 <sup>Note 1</sup>		+/-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 <sup>Note 2</sup>		0.42 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		0.01 kgm <sup>2</sup>			
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) <sup>Note 4</sup>		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

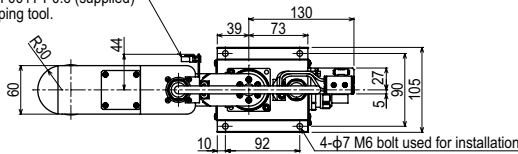
Controller	Power capacity (VA)	Operation method
RCX340	500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

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

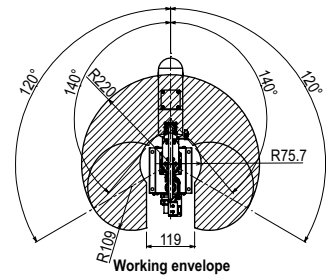
## YK220X

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.

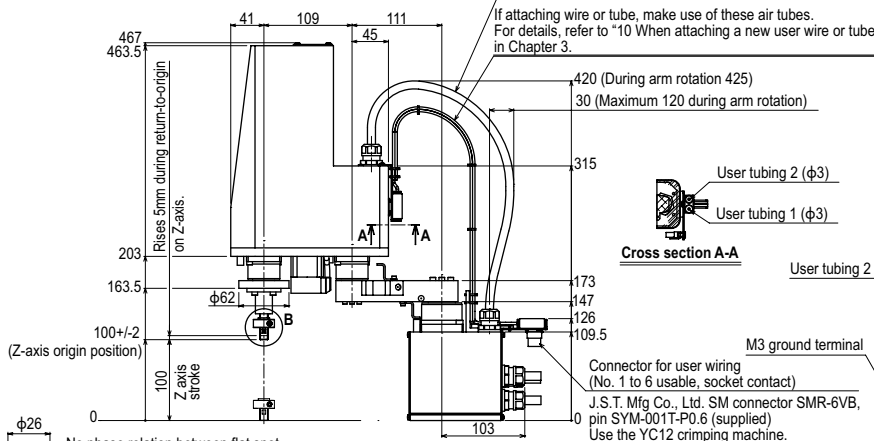


Do not attach any wire or tube to self-supporting cable. Doing so may degrade positioning accuracy.

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.

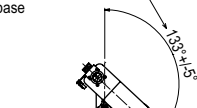


Working envelope



Cross section A-A

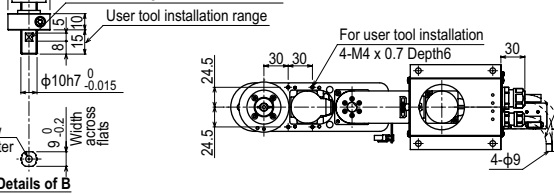
X-axis origin is at 0°/+5° with respect to front of robot base



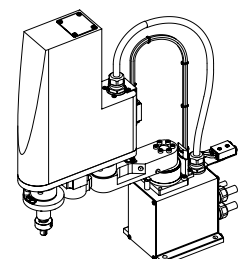
X, Y-axis origin position

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

No phase relation between flat spot and R-axis origin  
 User tool installation range



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



# YK250XG

Standard type: Small type

- Arm length 250mm
- Maximum payload 5kg

## Ordering method

**YK250XG - 150**

<b>Model</b>	Z axis stroke 150: 150mm	<b>Tool flange</b> No entry: None F: With tool flange	<b>Hollow shaft</b> No entry: None S: With hollow shaft	<b>Cable</b> 3L: 3.5m 5L: 5m 10L: 10m
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**RCX340-4**

<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>
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Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

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

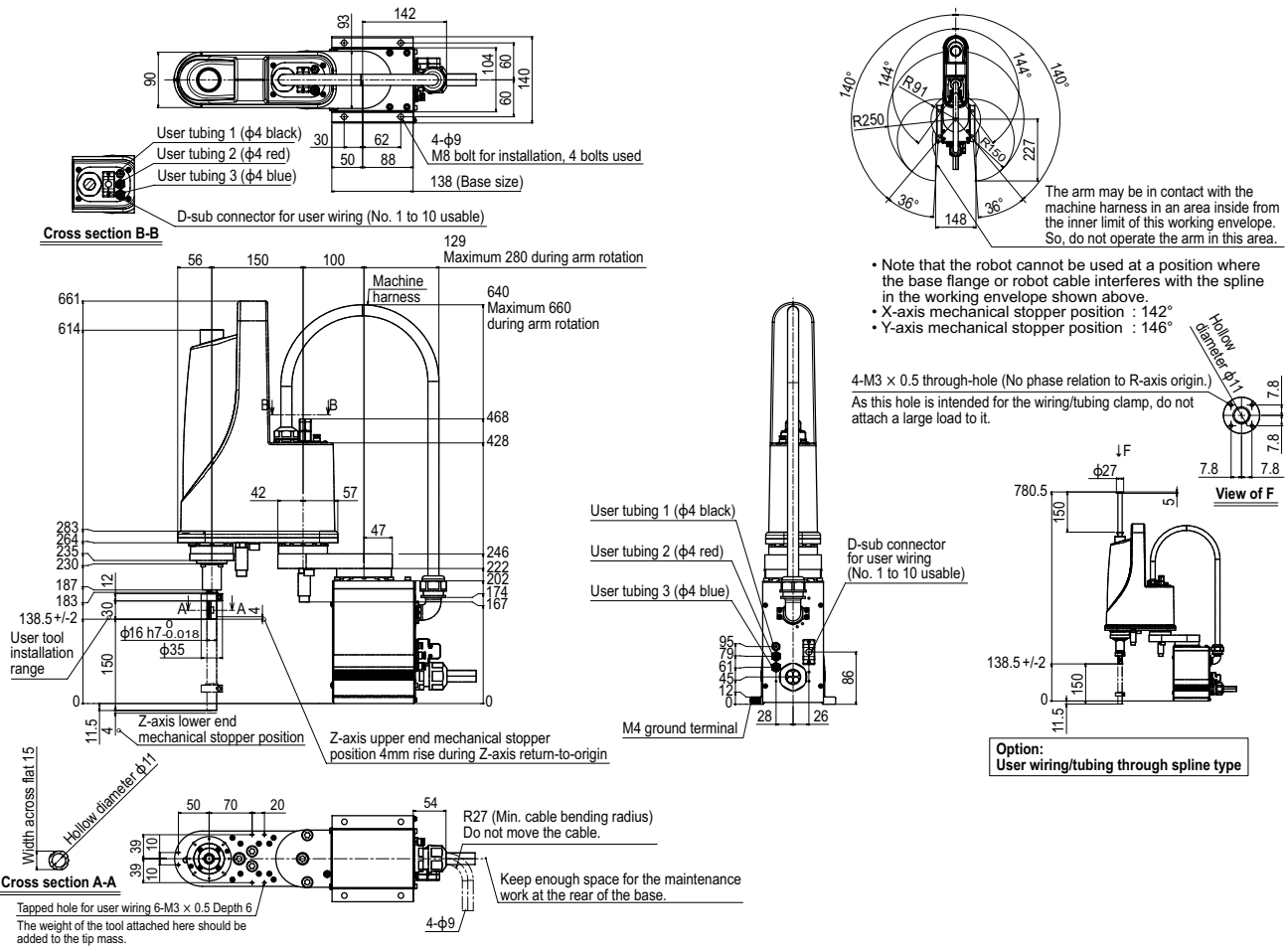
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

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

## YK250XG





# YK350XG

Standard type: Small type

- Arm length 350mm
- Maximum payload 5kg

## Ordering method

**YK350XG - 150**

<b>Model</b>	Z axis stroke 150: 150mm	<b>Tool flange</b> No entry: None F: With tool flange	<b>Hollow shaft</b> No entry: None S: With hollow shaft	<b>Cable</b> 3L: 3.5m 5L: 5m 10L: 10m
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**RCX340-4**

<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>
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Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

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

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

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

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

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

## Controller

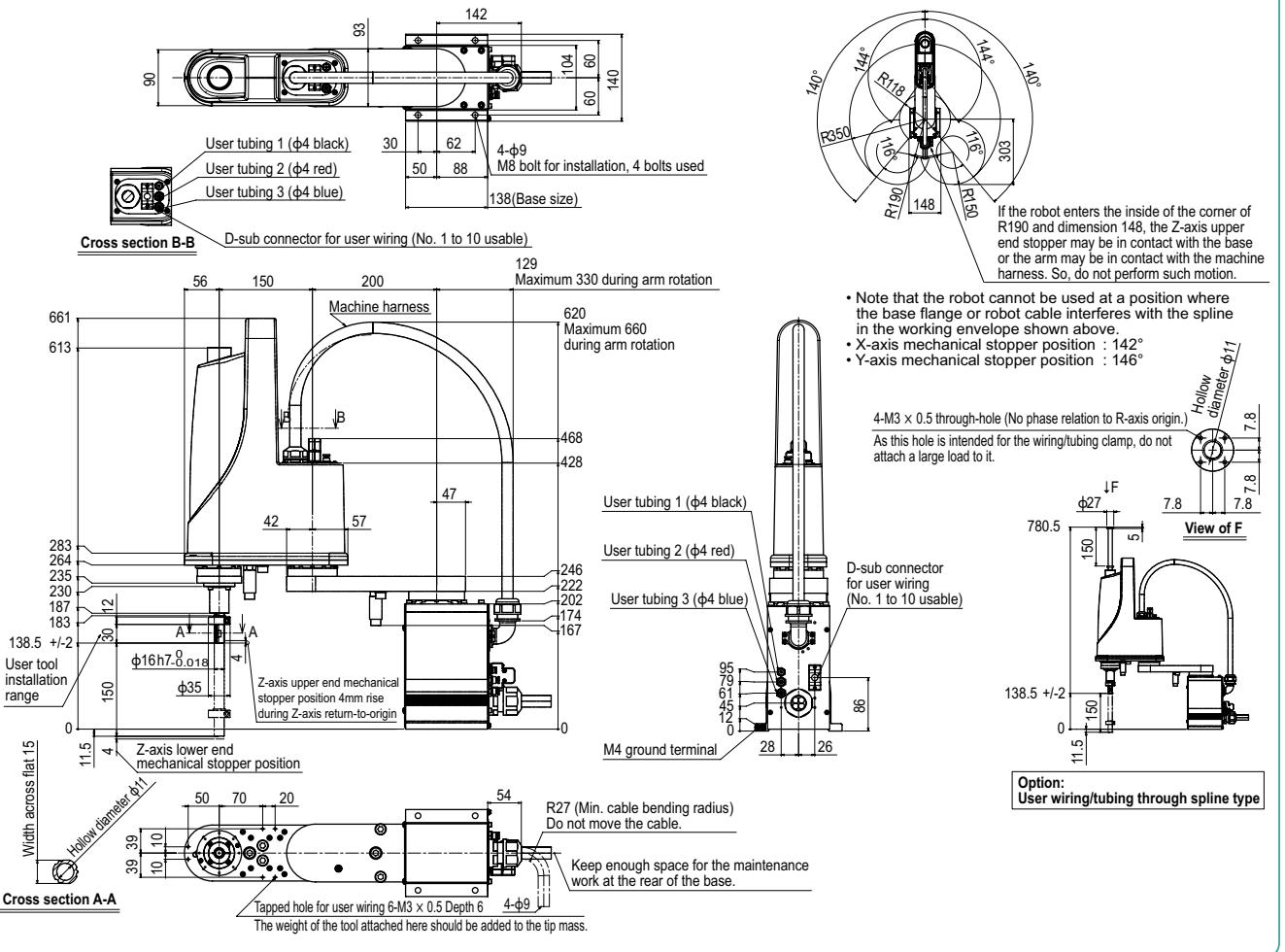
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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

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

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

## YK350XG



Articulated robots  
YA  
Linear conveyor modules  
LCM100  
Motor-less single axis reducer  
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 type  
Large type  
Wall mount/Inverse type  
Dust-proof & drip-proof type

Articulated robots  
YA

Linear conveyor modules  
LCM100

Motor-less single axis actuator  
Robonity

Compact single-axis robots  
TRANSEURO

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

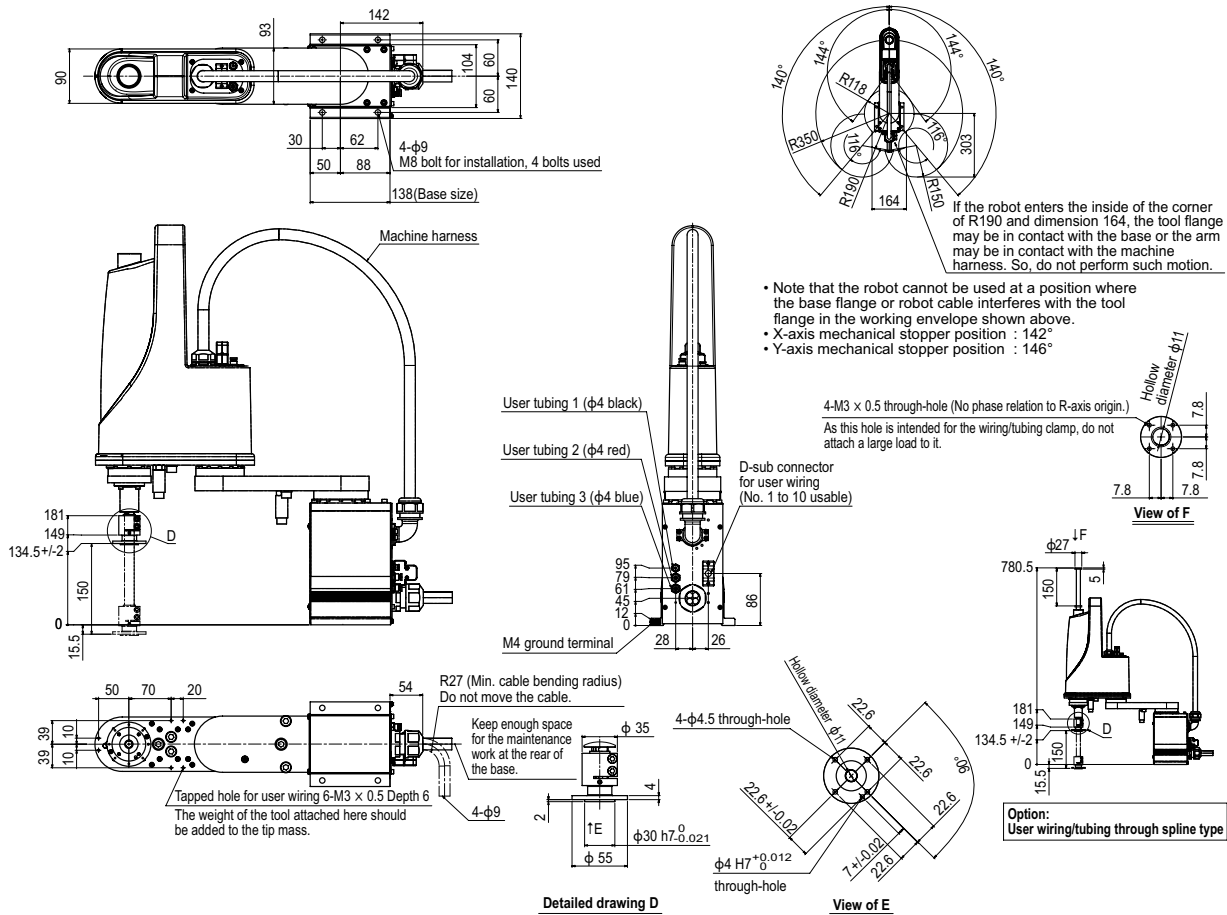
Small type

Large type

Wall mount / Inverse type

Dust-proof & drip-proof type

## YK350XG Tool flange mount type





# YK400XE-4

Standard type: Small type

LOW COST HIGH PERFORMANCE MODEL



- Arm length 400mm
- Maximum payload 4kg

## Ordering method

<b>YK400XE-4</b>	<b>150</b>	<b>RCX340-4</b>																		
<b>Model</b>	<b>Maximum payload</b>	<b>Return-to-origin method</b> S: Sensor T: Stroke end	<b>Z axis stroke</b>	<b>Hollow shaft</b> No entry: None S: With hollow shaft	<b>Cable</b> 3L: 3.5m 5L: 5m 10L: 10m	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>							

Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

		X-axis	Y-axis	Z-axis	R-axis
<b>Axis specifications</b>	<b>Arm length</b>	225 mm	175 mm	150 mm	-
	<b>Rotation angle</b>	+/-132°	+/-150°	-	+/-360°
<b>AC servo motor output</b>		200 W	100 W	100 W	100 W
<b>Deceleration mechanism</b>	<b>Transmission method</b>	Direct-coupled		Timing belt	
	<b>Speed reducer to output</b>	Direct-coupled		Timing belt	
<b>Repeatability</b> <sup>Note 1</sup>		+/-0.01 mm		+/-0.01 mm	+/-0.01°
<b>Maximum speed</b>		6 m/sec		1.1 m/sec	2600 °/sec
<b>Maximum payload</b>		4 kg (Standard specification), 3 kg (Option specifications) <sup>Note 4</sup>			
<b>Standard cycle time: with 2kg payload</b> <sup>Note 2</sup>		0.41 sec			
<b>R-axis tolerable moment of inertia</b> <sup>Note 3</sup>		0.05 kgm <sup>2</sup> (0.5 kgfcm <sup>2</sup> )			
<b>User wiring</b>		0.2 sq × 10 wires			
<b>User tubing (Outer diameter)</b>		φ 4 × 3			
<b>Travel limit</b>		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
<b>Robot cable length</b>		Standard: 3.5 m Option: 5 m, 10 m			
<b>Weight</b>		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 option specifications (with user wiring/tubing through spline type) is 3kg.

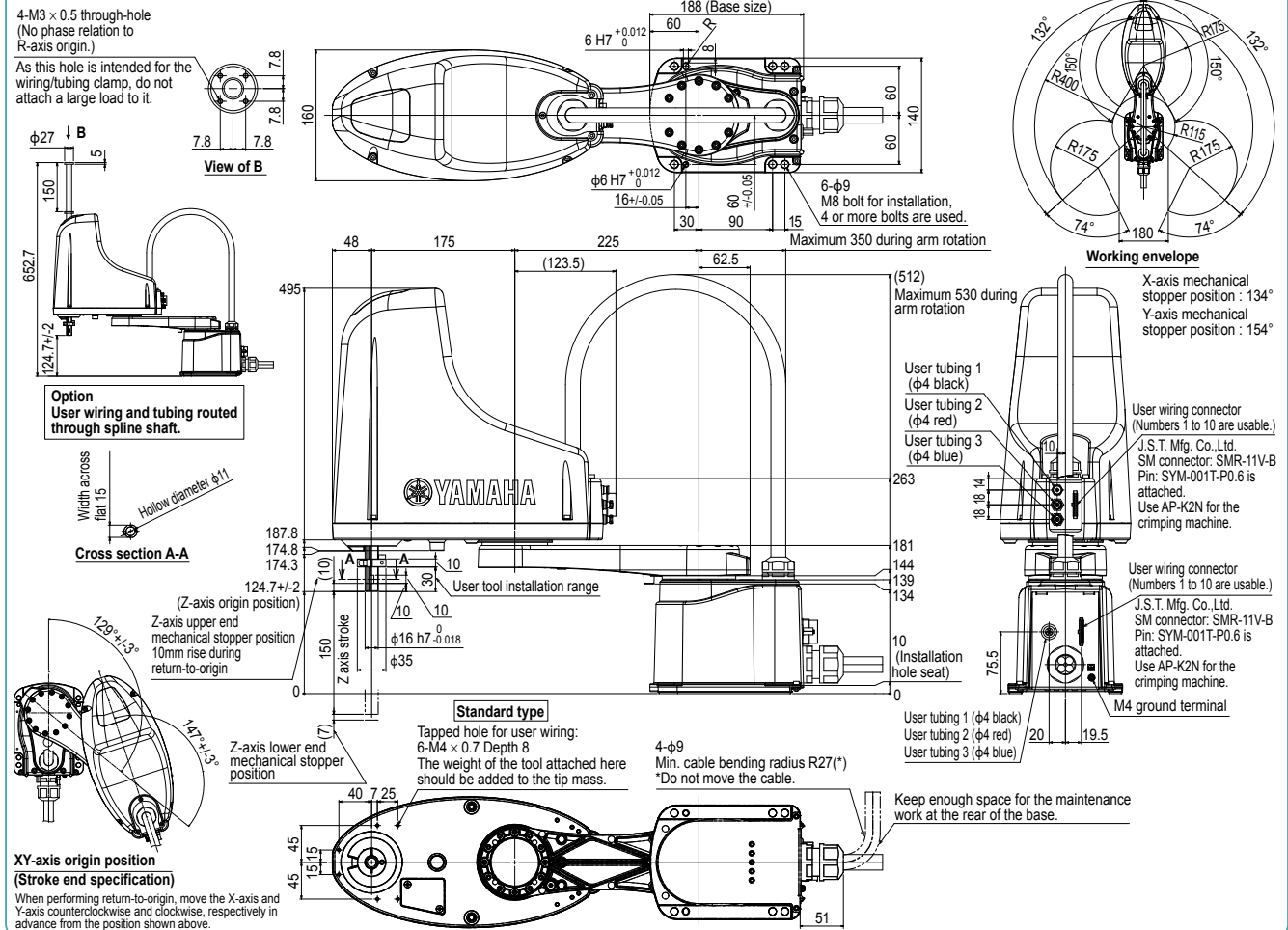
## Controller

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

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

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

## YK400XE-4



Articulated robots  
**YA**  
 Linear conveyor modules  
**LCM100**  
 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  
**YP-X**  
 CLEAN  
 CONTROLLER INFORMATION  
 Ortho/Extra small type  
 Small type  
 Large type  
 Wall mount/Inverse type  
 Dust-proof & drip-proof type

# YK400XG

Standard type: Small type

- Arm length 400mm
- Maximum payload 5kg

## Ordering method

**YK400XG - 150**

**RCX340-4**

<b>Model</b>	<b>Z axis stroke</b> 150: 150mm	<b>Tool flange</b> No entry: None F: With tool flange	<b>Hollow shaft</b> No entry: None S: With hollow shaft	<b>Cable</b> 3L: 3.5m 5L: 5m 10L: 10m	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OPA)</b>	<b>Option B (OPB)</b>	<b>Option C (OPC)</b>	<b>Option D (OPD)</b>	<b>Option E (OPE)</b>	<b>Absolute battery</b>
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Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
	Rotation angle	250 mm	150 mm	150 mm	-
		+/-140 °	+/-144 °	-	+/-360 °
<b>AC servo motor output</b>		200 W	150 W	50 W	100 W
<b>Deceleration mechanism</b>	<b>Transmission method</b>	Direct-coupled			
	<b>Motor to speed reducer</b>	Direct-coupled			
<b>Speed reducer to output</b>	Direct-coupled				
<b>Repeatability</b> <small>Note 1</small>		+/-0.01 mm		+/-0.01 mm	+/-0.004 °
<b>Maximum speed</b>		6.1 m/sec		1.1 m/sec	1020 °/sec
<b>Maximum payload</b>		5 kg (Standard specification), 4 kg (Option specifications <small>Note 4</small> )			
<b>Standard cycle time: with 2kg payload</b> <small>Note 2</small>		0.45 sec			
<b>R-axis tolerable moment of inertia</b> <small>Note 3</small>		0.05 kgm <sup>2</sup> (0.5 kgfcm <sup>2</sup> )			
<b>User wiring</b>		0.2 sq × 10 wires			
<b>User tubing (Outer diameter)</b>		φ 4 × 3			
<b>Travel limit</b>		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
<b>Robot cable length</b>		Standard: 3.5 m Option: 5 m, 10 m			
<b>Weight</b>		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

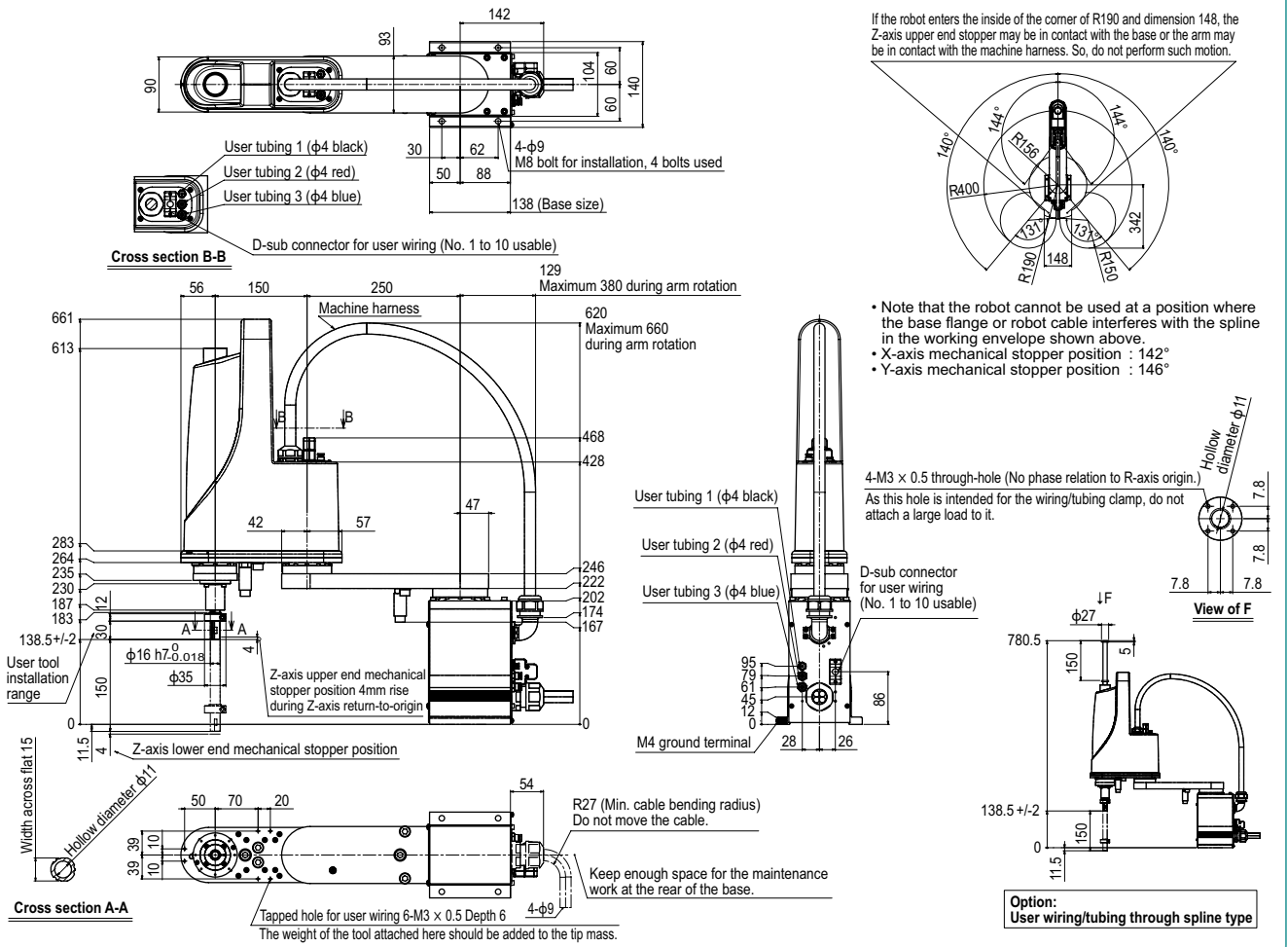
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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





# YK500XGL

Standard type: Medium type



- Arm length 500mm
- Maximum payload 5kg

## Ordering method

**YK500XGL - 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.566**

## Specifications

Axis specifications	Arm length	X-axis	Y-axis	Z-axis	R-axis
Rotation angle		250 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		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 <sup>2</sup> (0.5 kgfcm <sup>2</sup> )			
User wiring		0.2 sq × 10 wires			
User tubing (Outer diameter)		φ 4 × 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		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.

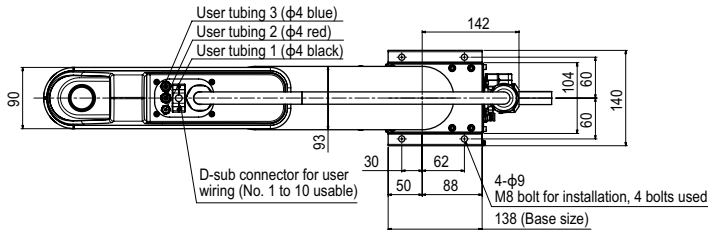
## Controller

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

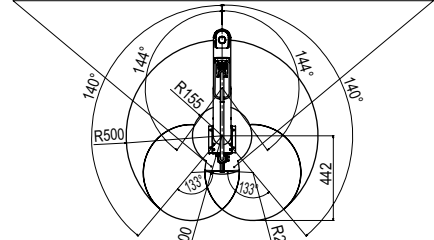
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
 See our robot manuals (installation manuals) for detailed information.  
 Note. To set the standard coordinates with high accuracy,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

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## YK500XGL

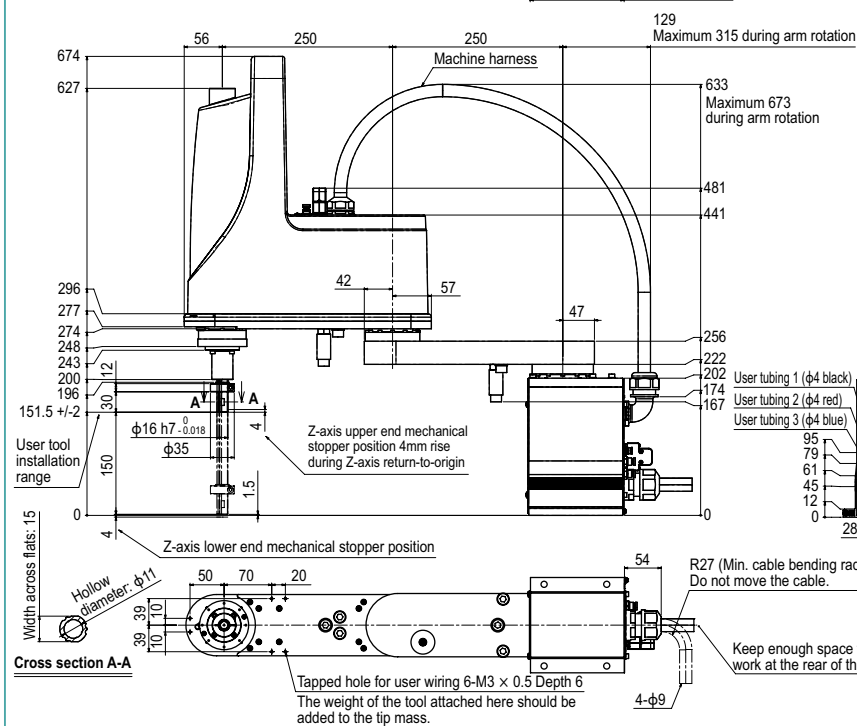
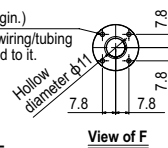


If the robot enters the inside of the corner of R200 and R250, the arm may be in contact with the machine harness. So, do not perform such motion.



- 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°

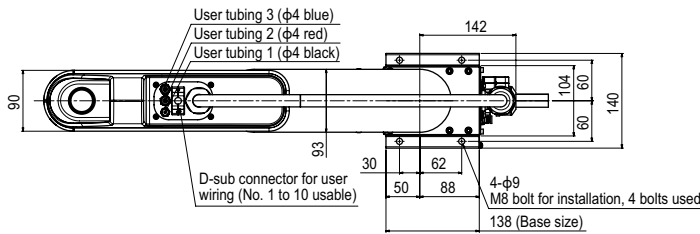
4-M3 × 0.5 through-hole (No phase relation to R-axis origin.)  
 As this hole is intended for the wiring/tubing clamp, do not attach a large load to it.



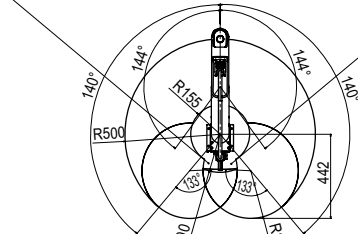
Option:  
 User wiring/tubing through spline type

Articulated robots YA
Linear conveyor modules LCM100
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 YP-X
CLEAN
CONTROLLER INFORMATION
Orbit/Extra small type
Medium type
Large type
Wall mount/Inverse type
Dust-proof & drip-proof type

YK500XGL Tool flange mount type

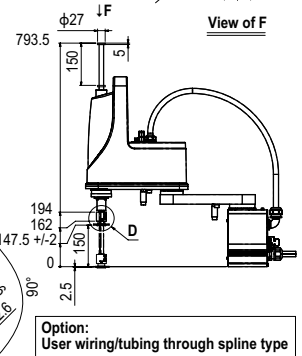
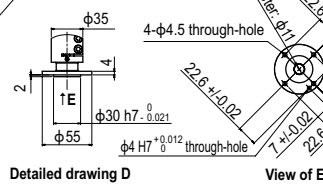
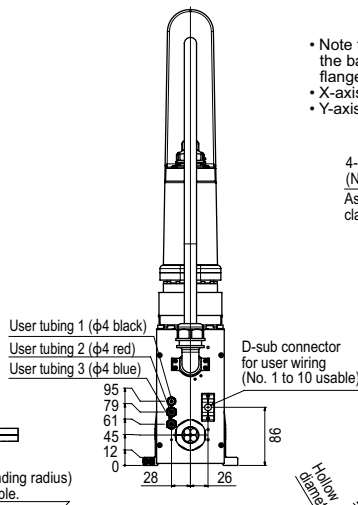
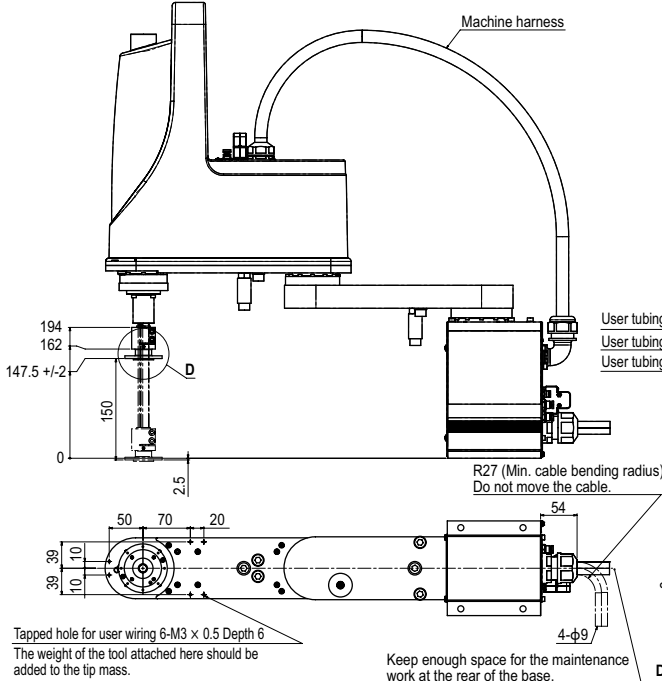
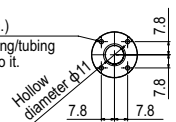


If the robot enters the inside of corners of R200 and R250, the arm may be in contact with the machine harness. So, do not perform such motion.



- 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 × 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

<b>YK500XG</b>				<b>RCX340-4</b>								
<b>Model</b>	<b>Z axis stroke</b> 200: 200mm 300: 300mm	<b>Tool flange</b> No entry: None F: With tool flange	<b>Cable</b> 3L: 3.5m 5L: 5m 10L: 10m	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>	

Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

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

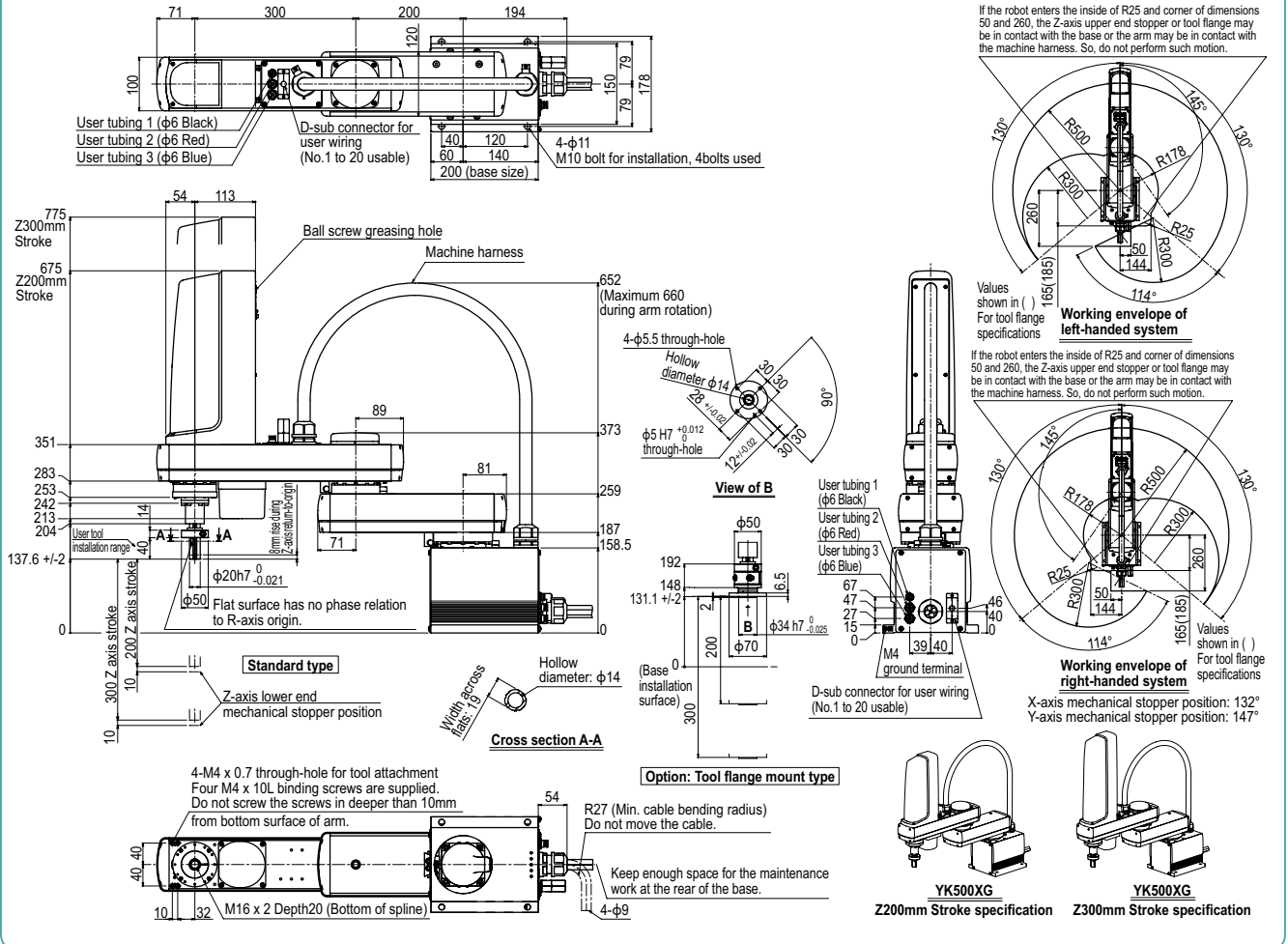
## Controller

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



# YK610XE-10

Standard type: Medium type

● LOW COST HIGH PERFORMANCE MODEL



- Arm length 610mm
- Maximum payload 10kg

## Ordering method

**YK610XE-10-200**

**RCX340-4**

Model	Maximum payload	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
			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.566**

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

Note 1. This is the value at a constant ambient temperature. (X,Y axes)  
 Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions and performing the coarse positioning arch operation.  
 Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and offset amount for R-axis moment of inertia settings.  
 Note 4. Maximum payload of option specifications (with user wiring/tubing through spline type) is 9kg.

## Controller

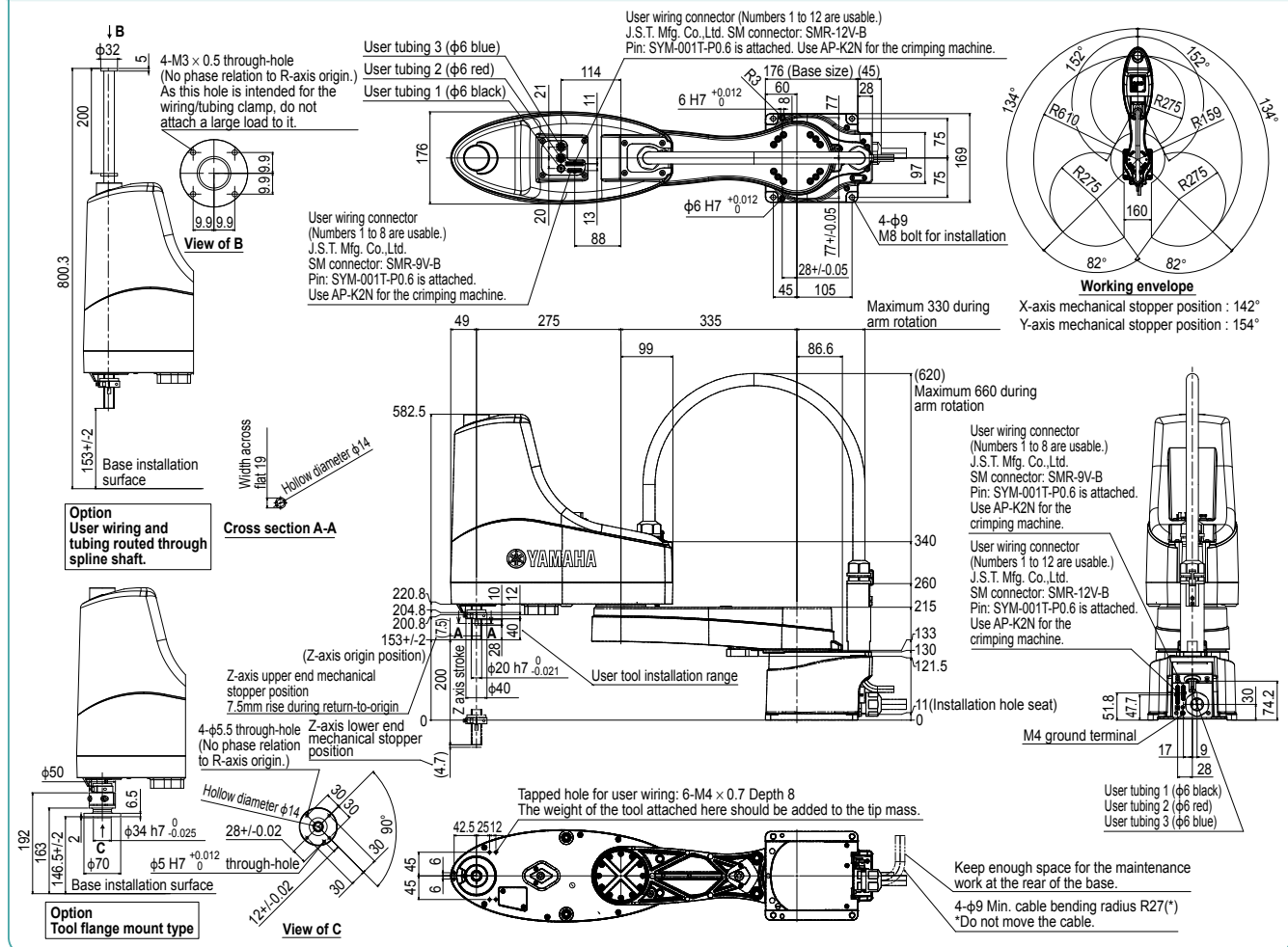
Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / Remote command / Operation using RS-232C communication

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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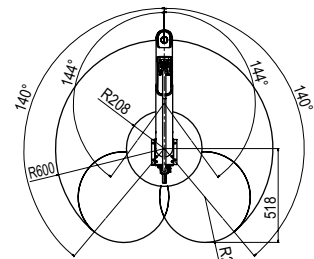
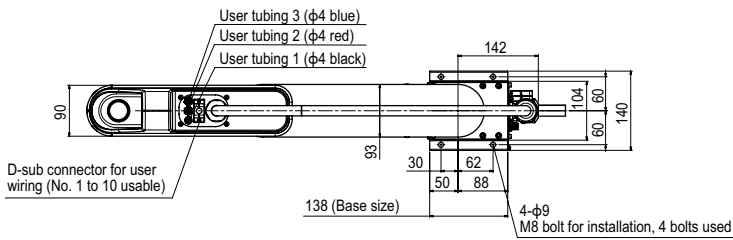
## YK610XE-10



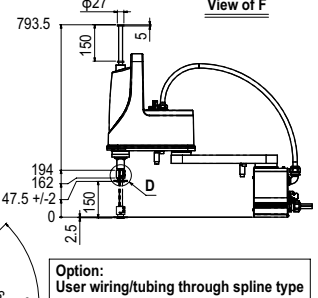
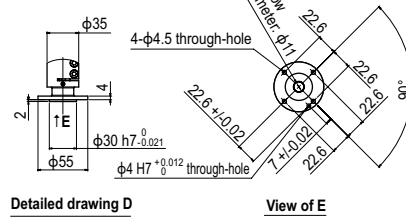
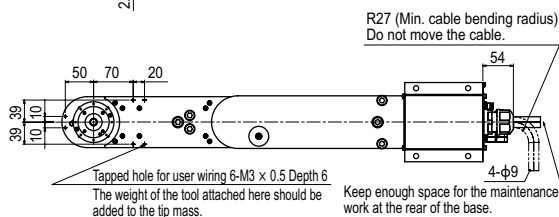
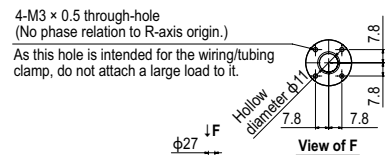
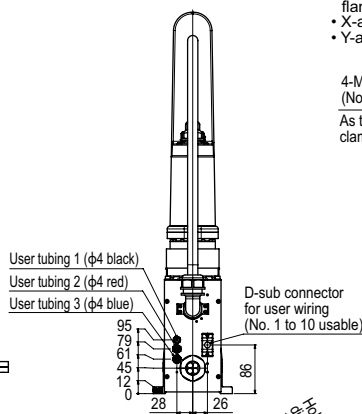
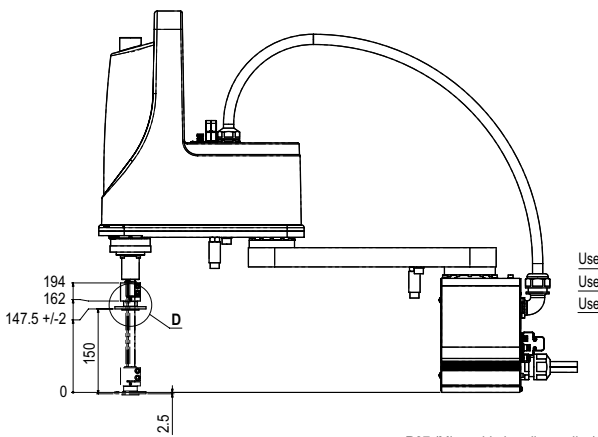


Articulated robots
YA
Linear conveyor modules
LCM100
Motor-less single axis actuator
Robonity
Compact single-axis robots
TRANSEVO
Single-axis robots
FLIP-X
Linear motor single-axis robots
PHASER
Cartesian robots
XY-X
SCARA robots
YK-X
Pick & place robots
YP-X
CLEAN
CONTROLLER INFORMATION
Orbit/Extra small type
Medium type
Large type
Wall mount/Inverse type
Dust-proof & drip-proof type

YK600XGL Tool flange mount type



- 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°







# YK600XGH

Standard type: Medium type



- Arm length 600mm
- Maximum payload 20kg

## Ordering method

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

Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

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

## Controller

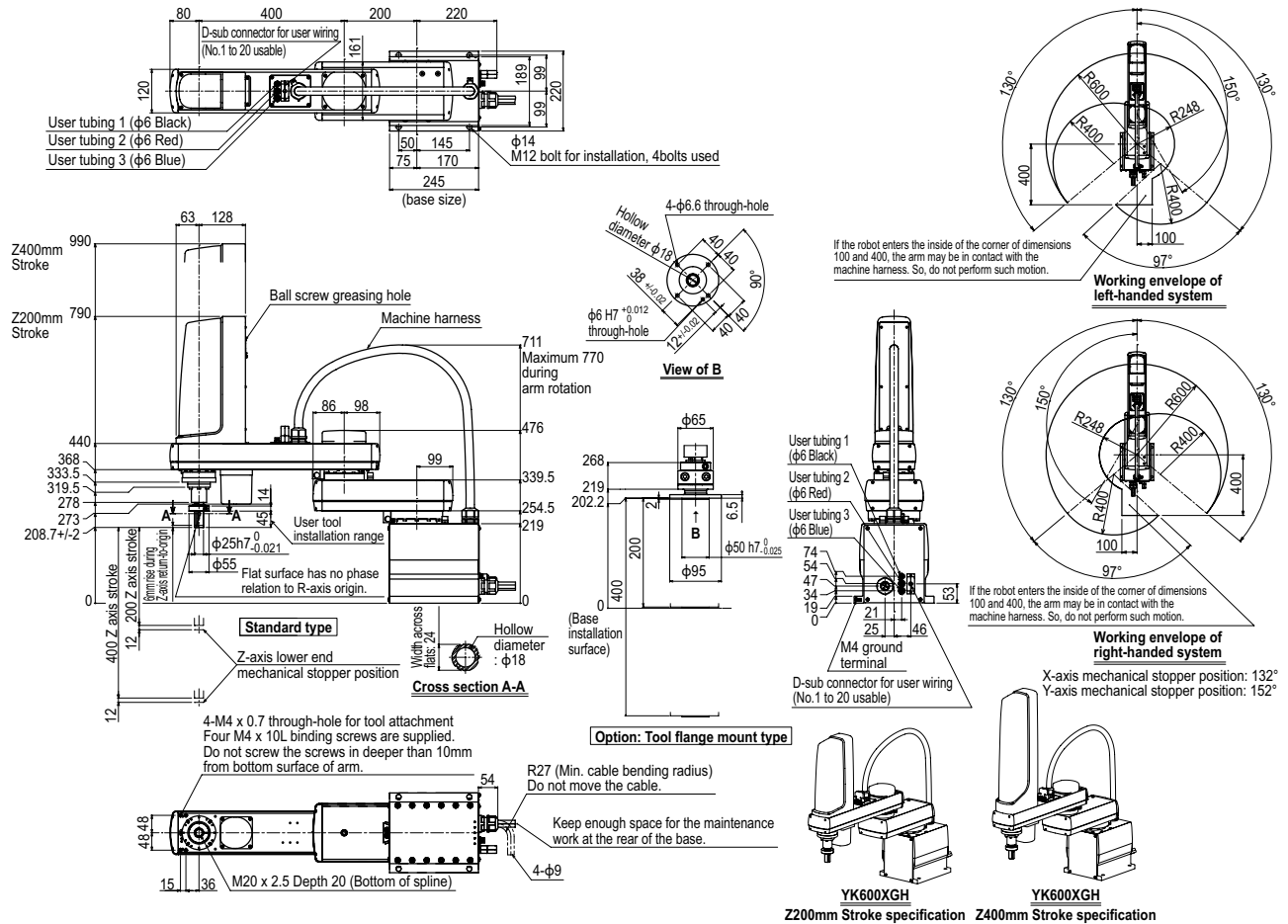
Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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/>

## YK600XGH



# YK710XE-10

Standard type: Large type

● LOW COST HIGH PERFORMANCE MODEL



- Arm length 710mm
- Maximum payload 10kg

## Ordering method

**YK710XE-10-200**

**RCX340-4**

Model	Maximum payload	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
			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.566**

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

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

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

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

Note 4. Maximum payload of option specifications (with user wiring/tubing through spline type) is 9kg.

## Controller

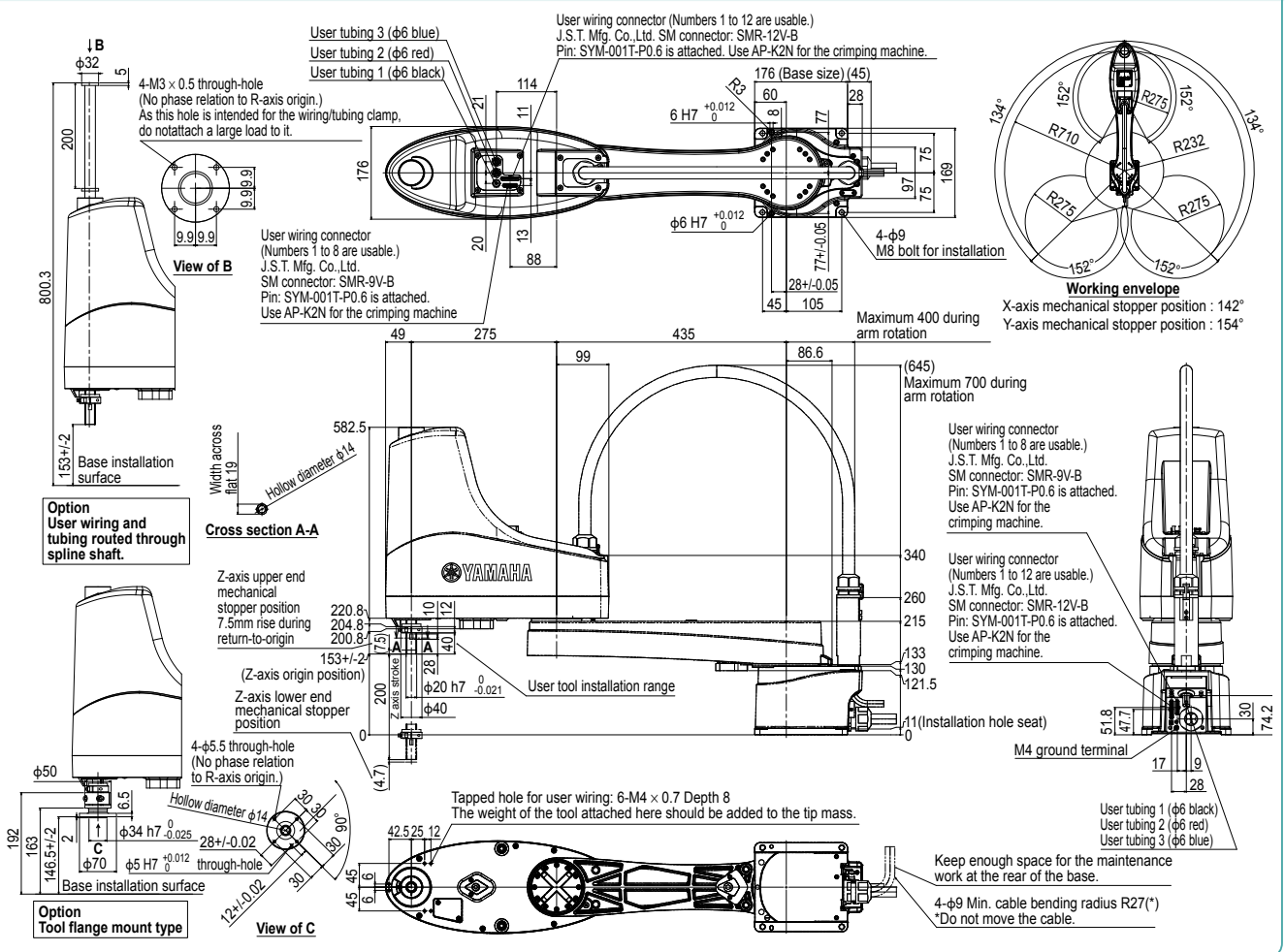
Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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

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

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

## YK710XE-10



# 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.566**

## 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 <sup>Note 1</sup>		+/-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 <sup>Note 2</sup>		0.50 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		0.30 kgm <sup>2</sup>			
User wiring		0.2 sq x 20 wires			
User tubing (Outer diameter)		φ6 x 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5, 10 m			
Weight		32 kg			

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

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

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

## Controller

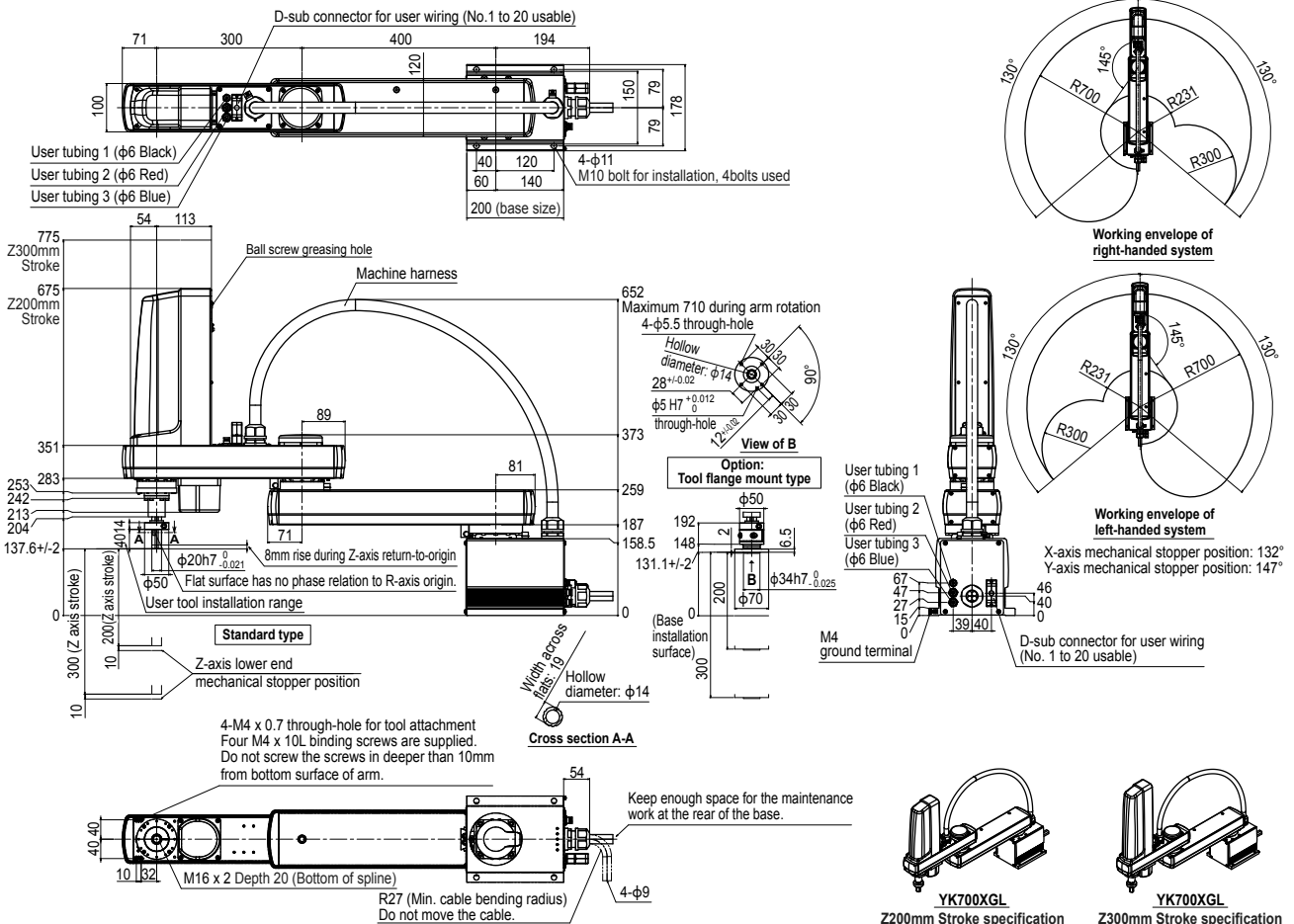
Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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

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

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

## YK700XGL







# YK800XG

Standard type: Large type

- Arm length 800mm
- Maximum payload 20kg



## Ordering method

**YK800XG**

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

**RCX340-4**

<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>
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Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

		X-axis	Y-axis	Z-axis	R-axis
<b>Axis specifications</b>	<b>Arm length</b>	400 mm	400 mm	200 mm 400 mm	—
	<b>Rotation angle</b>	+/-130 °	+/-150 °	—	+/-360 °
<b>AC servo motor output</b>		750 W	400 W	400 W	200 W
<b>Deceleration mechanism</b>	<b>Transmission method</b>	Direct-coupled			
	<b>Motor to speed reducer</b> <b>Speed reducer to output</b>	Direct-coupled			
<b>Repeatability</b> <sup>Note 1</sup>		+/-0.02 mm	+/-0.01 mm	+/-0.004 °	
<b>Maximum speed</b>		9.2 m/sec	2.3 m/sec 1.7 m/sec	920 °/sec	
<b>Maximum payload</b>		20 kg (Standard type), 19 kg (Tool flange mount type)			
<b>Standard cycle time: with 2kg payload</b> <sup>Note 2</sup>		0.48 sec			
<b>R-axis tolerable moment of inertia</b> <sup>Note 3</sup>		1.0 kgm <sup>2</sup>			
<b>User wiring</b>		0.2 sq x 20 wires			
<b>User tubing (Outer diameter)</b>		φ 6 x 3			
<b>Travel limit</b>		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
<b>Robot cable length</b>		Standard: 3.5 m Option: 5 m, 10 m			
<b>Weight</b>		Z axis 200 mm: 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

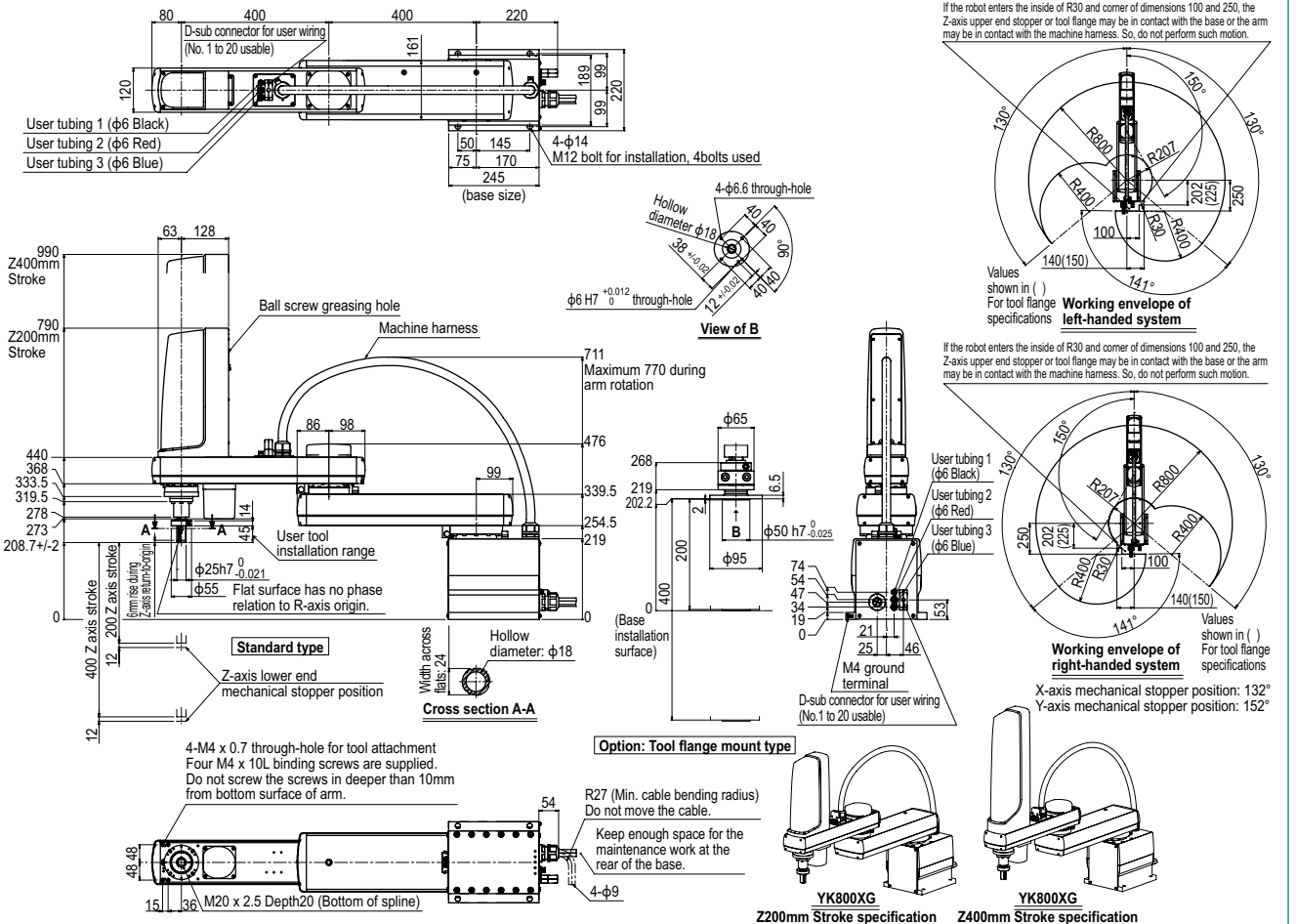
Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

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

## YK800XG





# YK900XG

Standard type: Large type



- Arm length 900mm
- Maximum payload 20kg

## Ordering method

<b>YK900XG</b>				<b>RCX340-4</b>							
<b>Model</b>	<b>Z axis stroke</b> 200: 200mm 400: 400mm	<b>Tool flange</b> No entry: None F: With tool flange	<b>Cable</b> 3L: 3.5m 5L: 5m 10L: 10m	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>

Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

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

## Controller

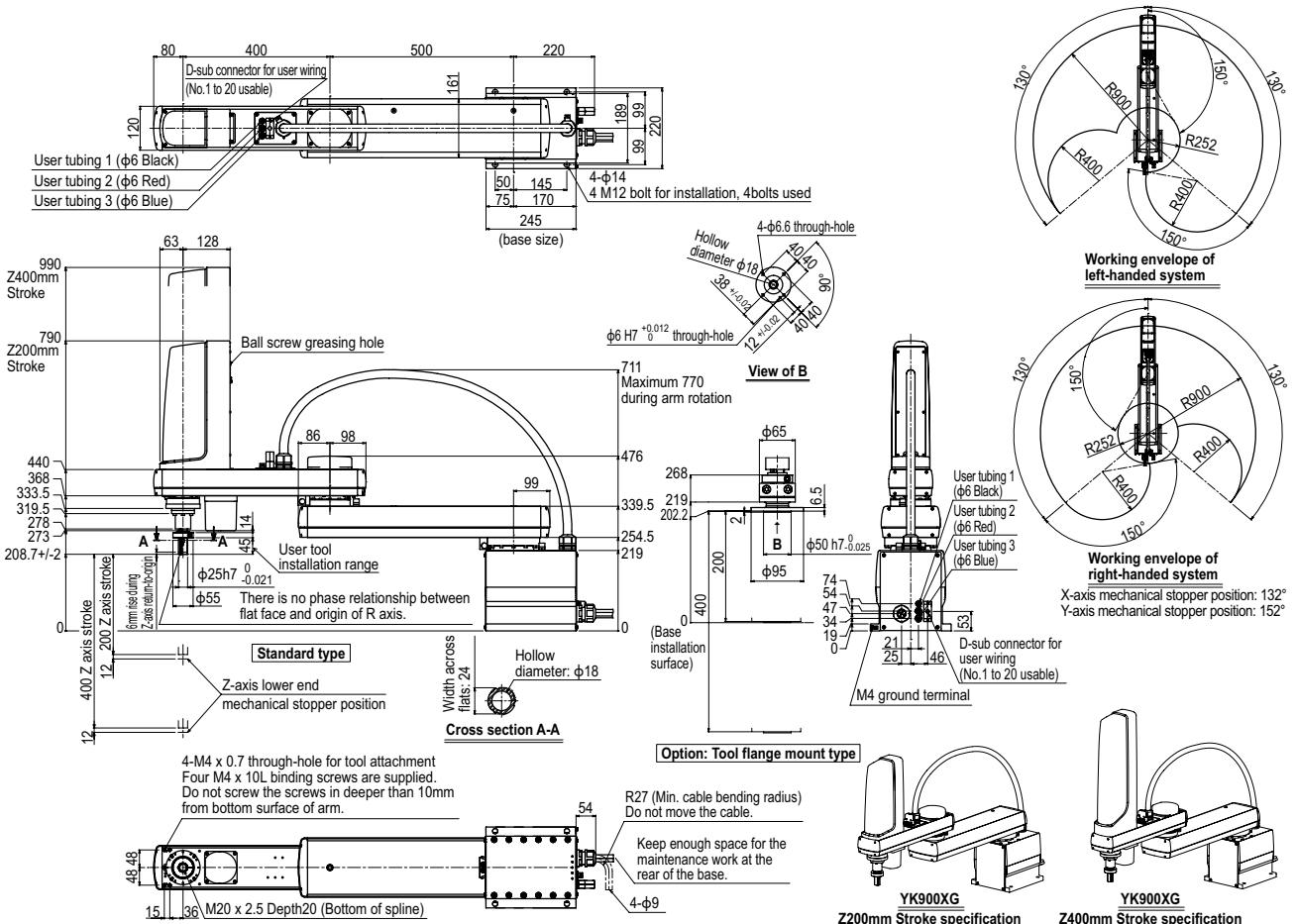
Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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/>

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.

## YK900XG



# YK1000XG

Standard type: Large type

- Arm length 1000mm
- Maximum payload 20kg



## Ordering method

**YK1000XG**

<b>Z axis stroke</b>	<b>Tool flange</b>
200: 200mm 400: 400mm	No entry: None F: With tool flange

**RCX340-4**

<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>
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Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

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

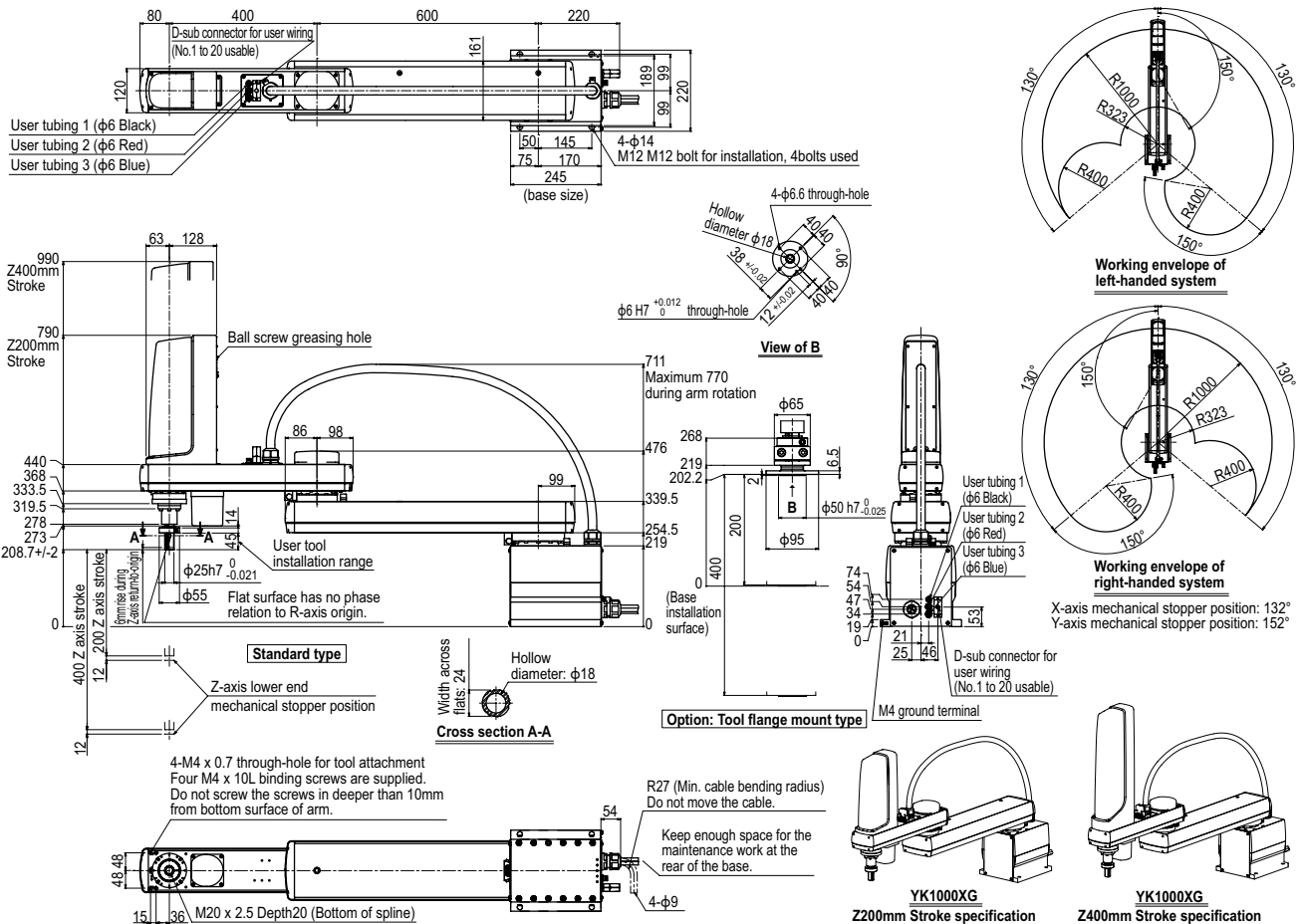
Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

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

## YK1000XG



# YK1200X

Standard type: Large type



- Arm length 1200mm
- Maximum payload 50kg

## Ordering method

**YK1200X - 400**

**RCX340-4**

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

Specify various controller setting items. RCX340 ▶ **P.566**

## 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	Direct-coupled
Repeatability <sup>Note 1</sup>		+/-0.05 mm		+/-0.02 mm	+/-0.005 °
Maximum speed		7.4 m/sec		0.75 m/sec	600 °/sec
Maximum payload		50 kg			
Standard cycle time: with 2kg payload <sup>Note 2</sup>		0.91 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		2.45 kgm <sup>2</sup>			
User wiring		0.2 sq × 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		124 kg			

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

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

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

## Controller

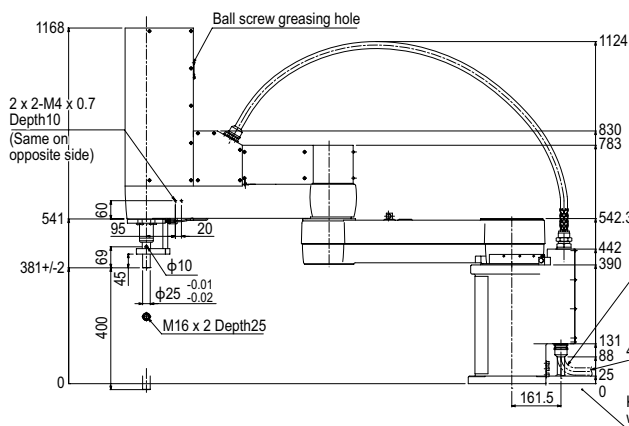
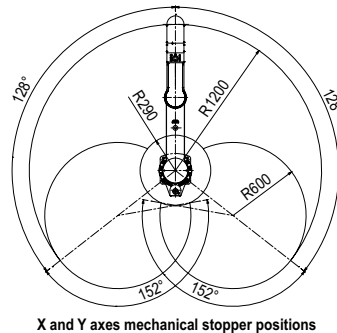
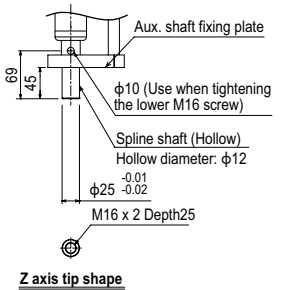
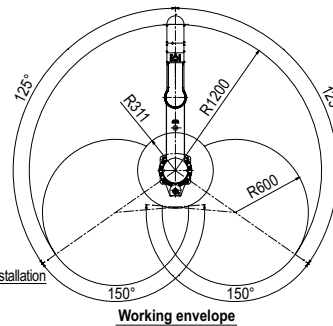
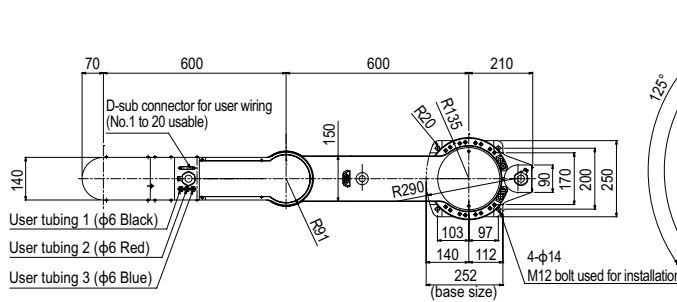
Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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

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

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

## YK1200X



# 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 <sup>Note1</sup>	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.566**

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

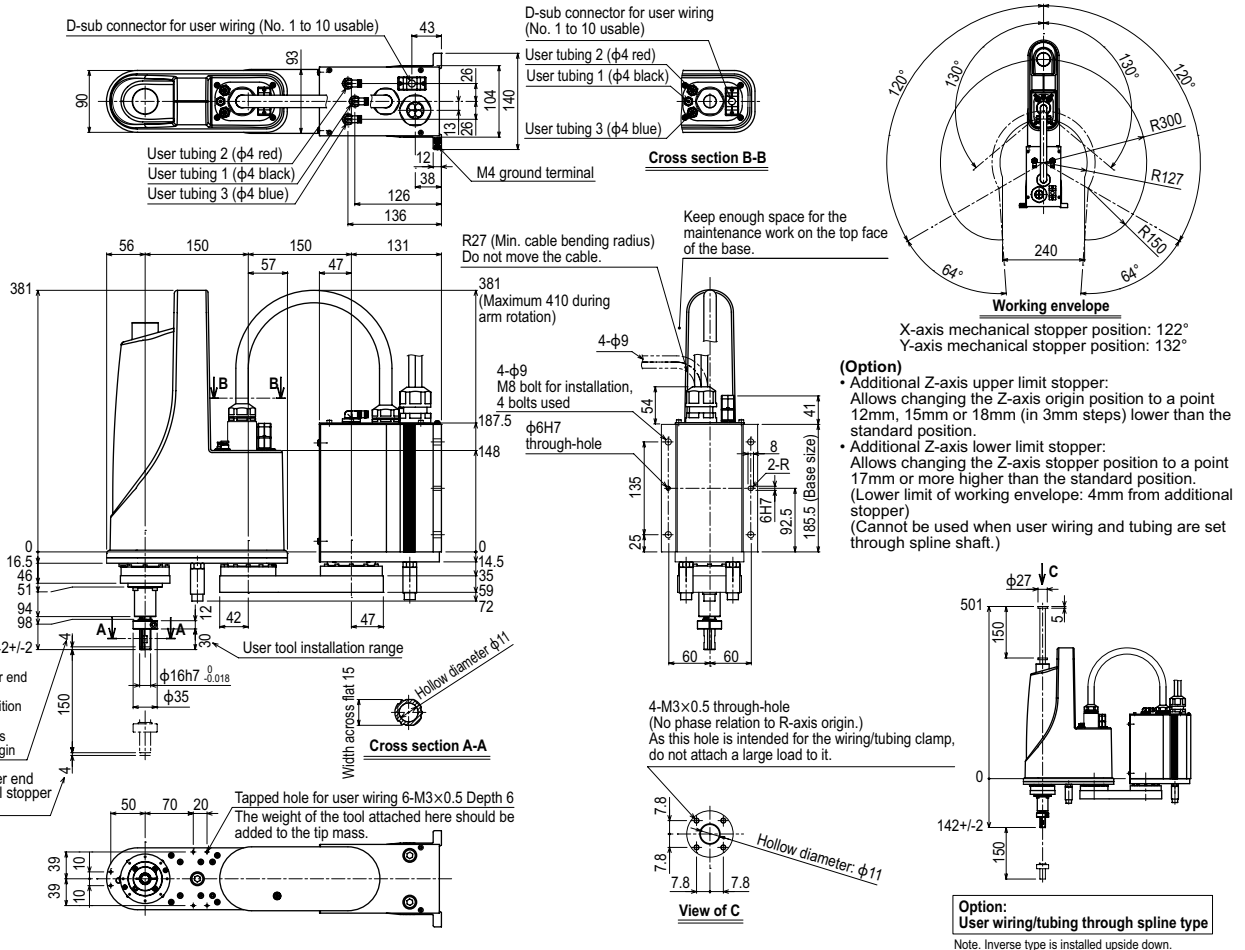
## Controller

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/>

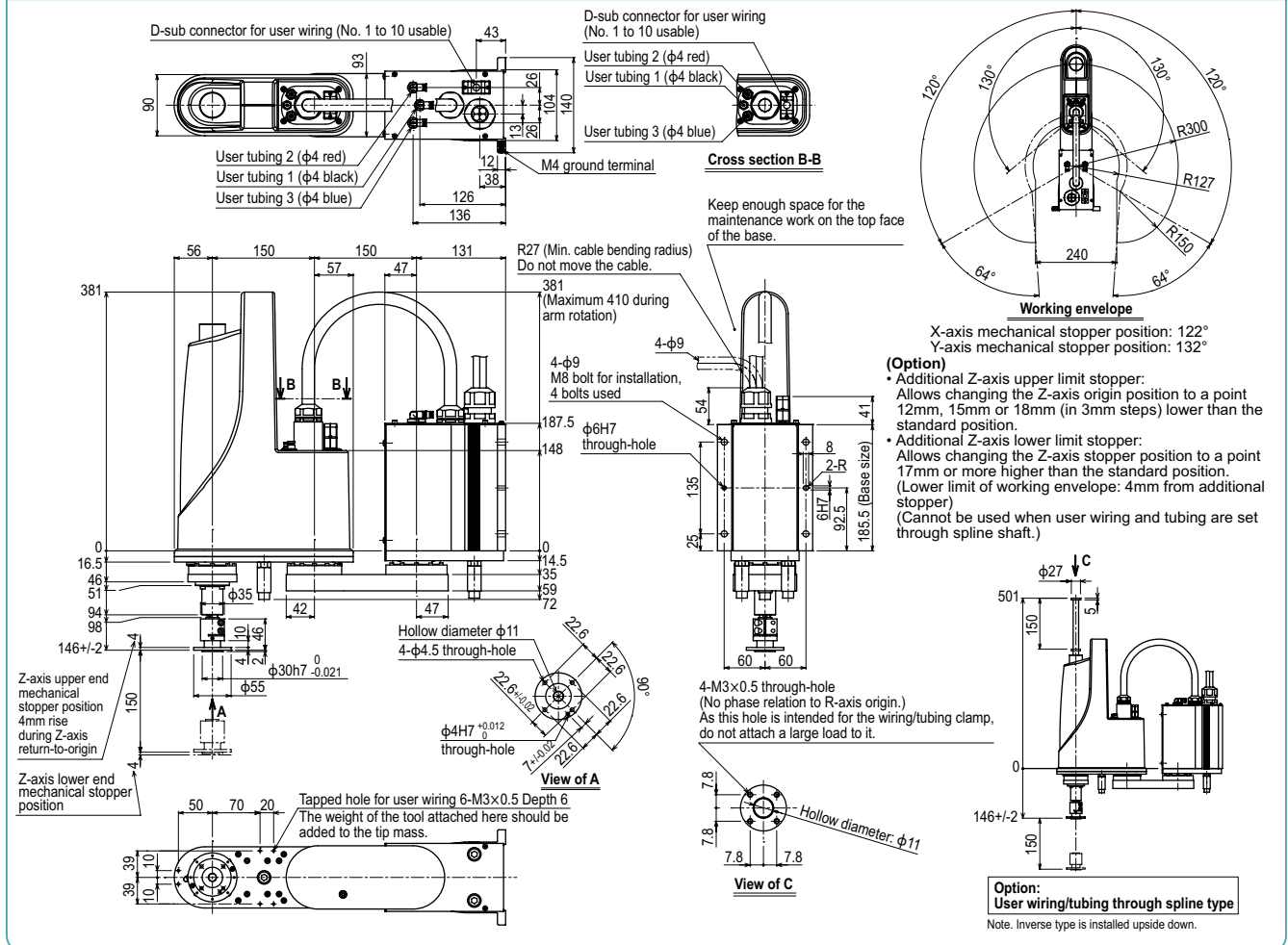
## YK300XGS



Articulated robots  
YA  
Linear conveyor modules  
LCM100  
Motor-less single axis robot  
Robonity  
Compact single-axis robots  
TRANSEURO  
Single-axis robots  
FLIP-X  
Linear motor single-axis robots  
PHASER  
Cartesian robots  
XY-X  
SCARA robots  
YK-X  
Pick & place  
YP-X  
CLEAN  
CONTROLLER INFORMATION  
Ortho/Extra small type  
Small / Medium type  
Large type  
Wall mount / Inverse type  
Dust-proof & drip-proof type

- Articulated robots  
**YA**
- Linear conveyor modules  
**LCM100**
- Motor-less single axis actuator  
**Robonity**
- Compact single-axis robots  
**TRANSEURO**
- 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**
- Ohh!/Extra small type
- Small / Medium type
- Large type
- Wall mount / Inverse type
- 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 <sup>Note1</sup>	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.566**

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

## Specifications

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

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

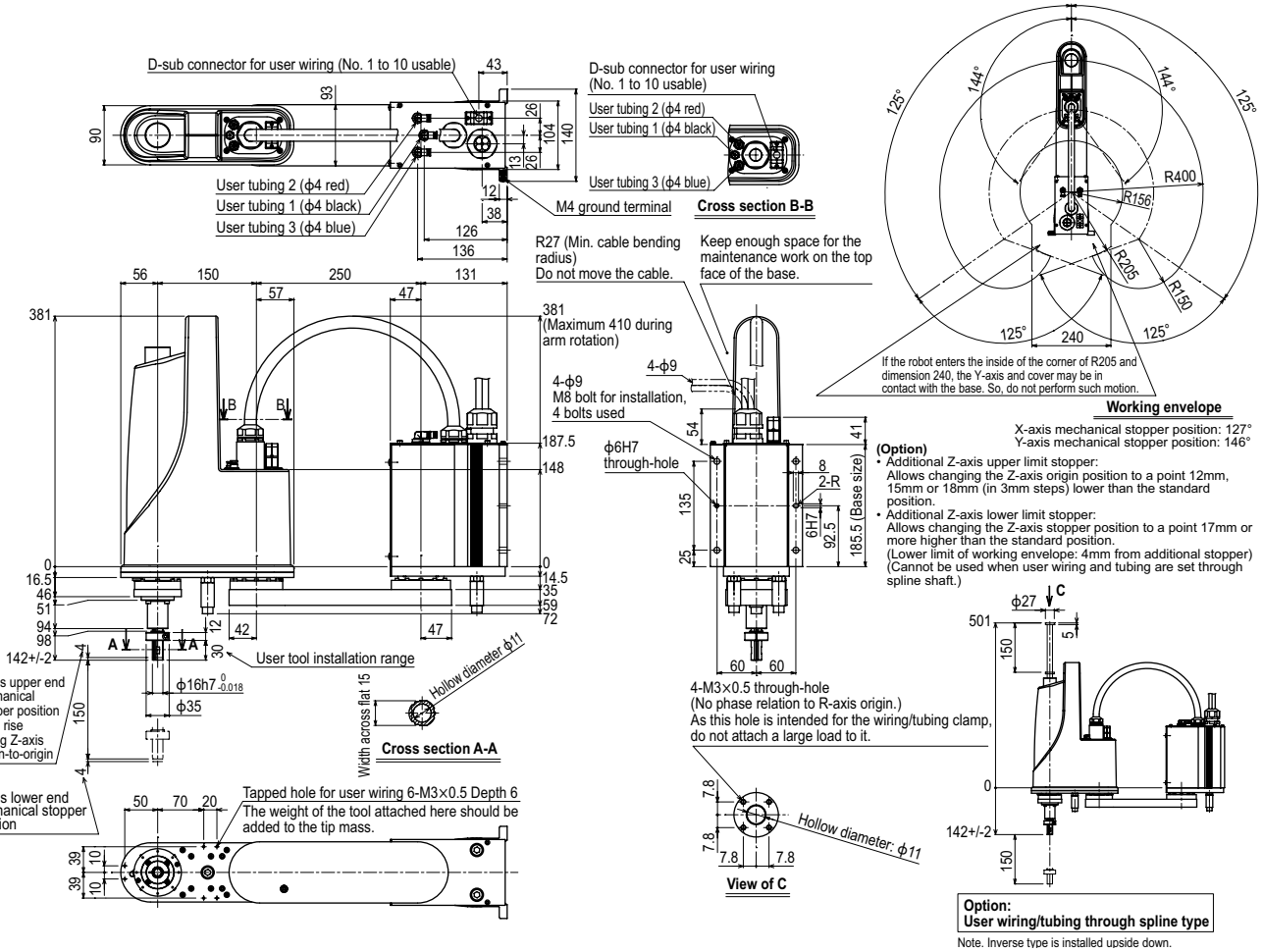
## Controller

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

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

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

## YK400XGS



Articulated robots  
YA  
Linear conveyor modules  
LCM100  
Motor-less single axis actuator  
Robonity  
Compact single-axis robots  
TRANSEURO  
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  
Oht/ Extra small type  
Small / Medium type  
Large type  
Wall mount / Inverse type  
Dust-proof & drip-proof type





# YK600XGS

Wall mount / inverse type

- Arm length 600mm
- Maximum payload 10kg



## Ordering method

<b>YK600XGS</b>					<b>RCX340-4</b>										
<b>Model</b>	<b>Installation method</b> <sup>Note 1</sup>	<b>Z axis stroke</b>	<b>Tool flange</b>	<b>Cable</b>	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>			
	W: Wall mount (same as per external view) U: Inverse wall mount (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.566**

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

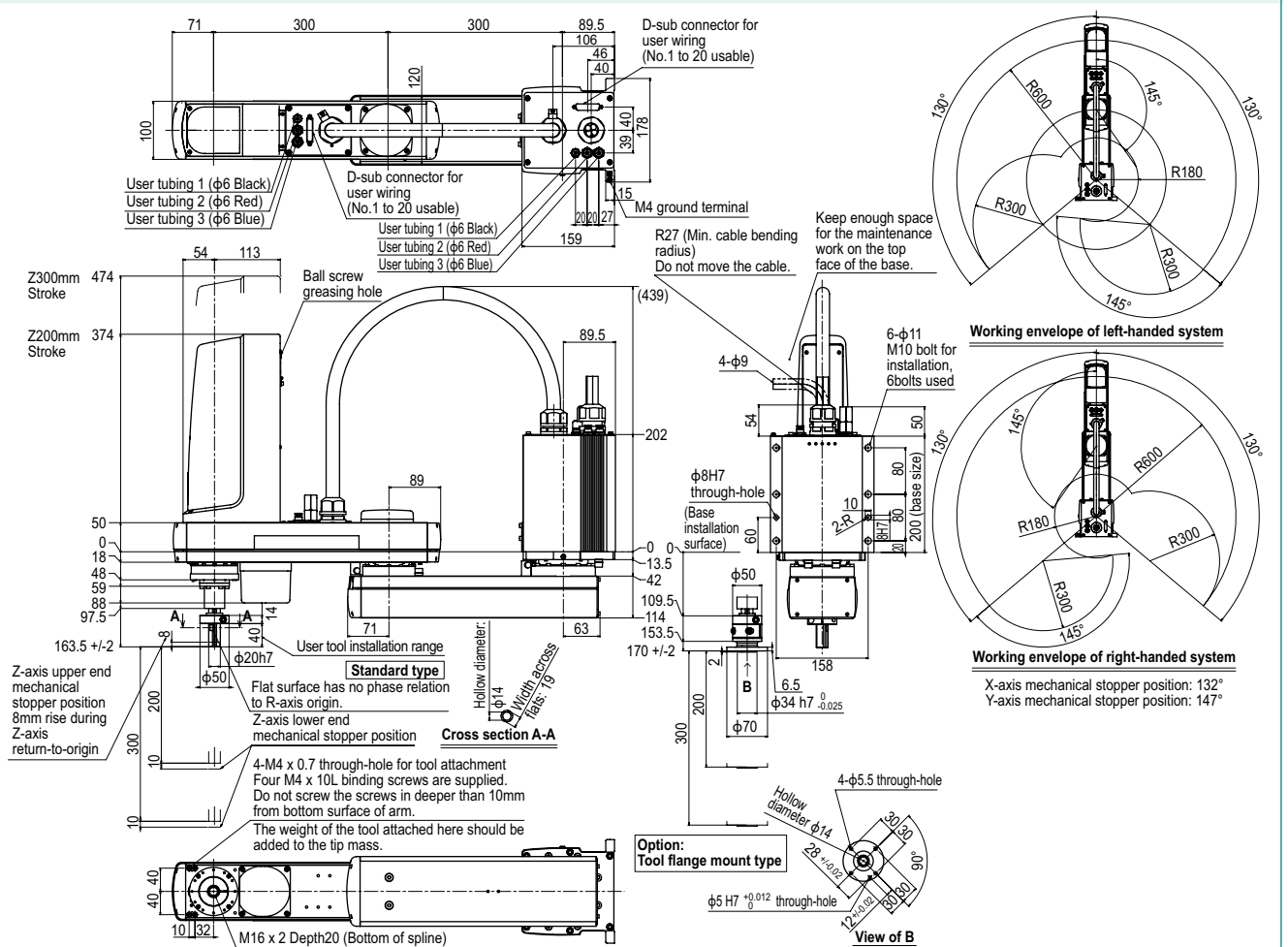
## Controller

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.

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

## YK600XGS



# YK700XGS

Wall mount / inverse type

- Arm length 700mm
- Maximum payload 20kg

## Ordering method

<b>YK700XGS</b>					<b>RCX340-4</b>								
<b>Model</b>	<b>Installation method</b> <small>Note 1</small>	<b>Z axis stroke</b>	<b>Tool flange</b>	<b>Cable</b>	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>	
	W: Wall mount (same as per external view) 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 controller setting items. RCX340 ▶ **P.566**

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

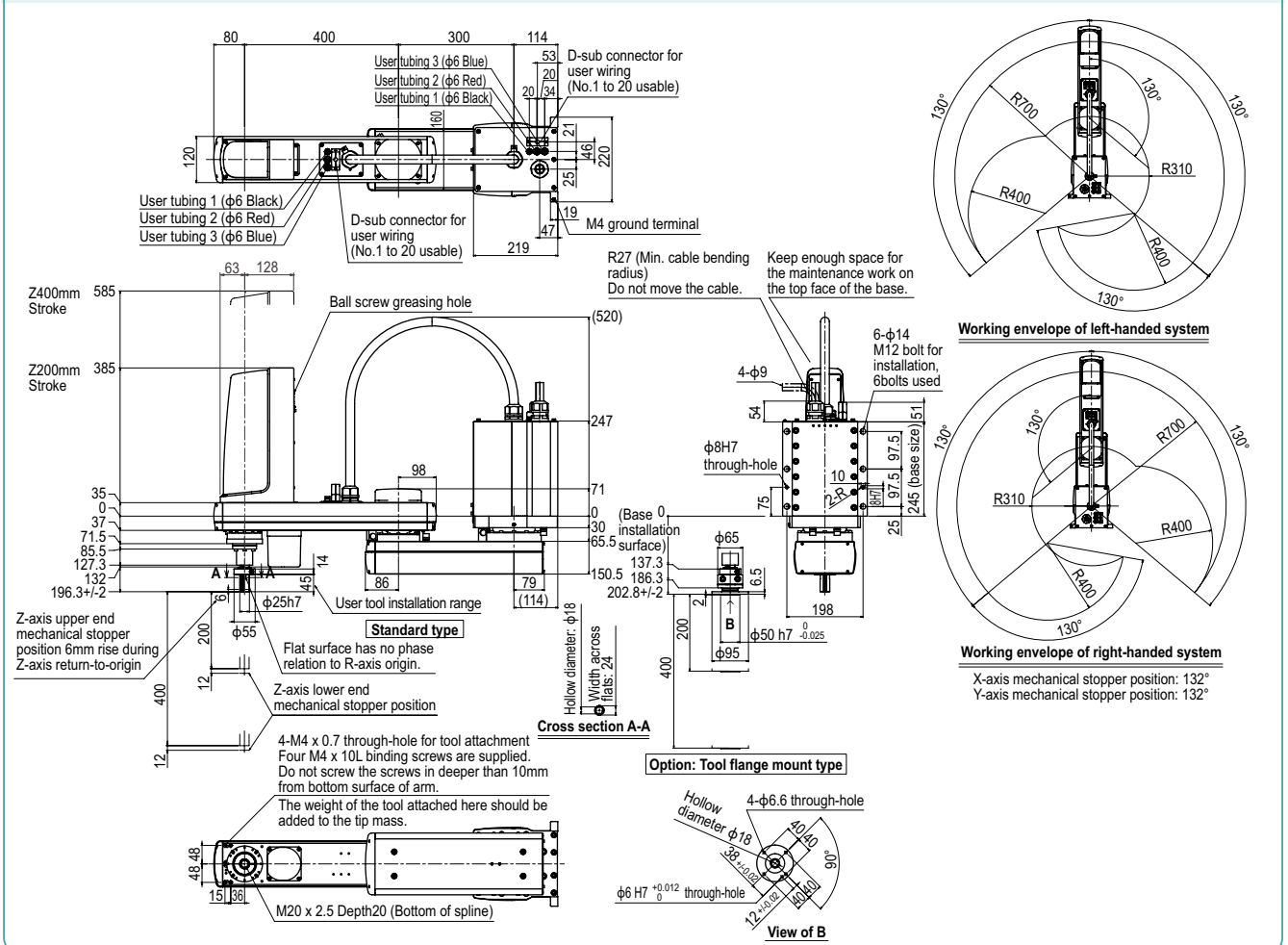
## Controller

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:  
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## YK700XGS



Articulated robots  
YA  
Linear conveyor modules  
LCM100  
Motor-less single axis actuator  
Robonity  
Compact single-axis robots  
TRANSEURO  
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  
Orbit/ Small / Medium type  
Large type  
Wall mount / Inverse type  
Dust-proof & drip-proof type



# YK800XGS

Wall mount / inverse type

- Arm length 800mm
- Maximum payload 20kg

## Ordering method

<b>YK800XGS</b>					<b>RCX340-4</b>										
<b>Model</b>	<b>Installation method</b> <small>Note 1</small>	<b>Z axis stroke</b>	<b>Tool flange</b>	<b>Cable</b>	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>			
	W: Wall mount (same as per external view) U: Inverse wall mount (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.566**

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
<b>Rotation angle</b>		400 mm	400 mm	200 mm/400 mm	—
<b>AC servo motor output</b>		+/-130 °	+/-145 °	—	+/-360 °
<b>Deceleration mechanism</b>	<b>Transmission method</b>	750 W	400 W	400 W	200 W
	<b>Motor to speed reducer</b>	Direct-coupled			
	<b>Speed reducer to output</b>	Direct-coupled			
<b>Repeatability</b> <small>Note 1</small>		+/-0.02 mm		+/-0.01 mm	+/-0.004 °
<b>Maximum speed</b>		9.2 m/sec		2.3 m/sec 1.7 m/sec	920 °/sec (wall mount) 480 °/sec (inverse wall mount)
<b>Maximum payload</b>		20 kg (Standard type), 19 kg (Tool flange mount type)			
<b>Standard cycle time: with 2kg payload</b> <small>Note 2</small>		0.48 sec			
<b>R-axis tolerable moment of inertia</b> <small>Note 3</small>		1.0 kgm <sup>2</sup>			
<b>User wiring</b>		0.2 sq × 20 wires			
<b>User tubing (Outer diameter)</b>		φ 6 × 3			
<b>Travel limit</b>		1. Soft limit 2. Mechanical stopper (X,Y,Z axis)			
<b>Robot cable length</b>		Standard: 3.5 m Option: 5 m, 10 m			
<b>Weight</b>		Z axis 200 mm: 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.

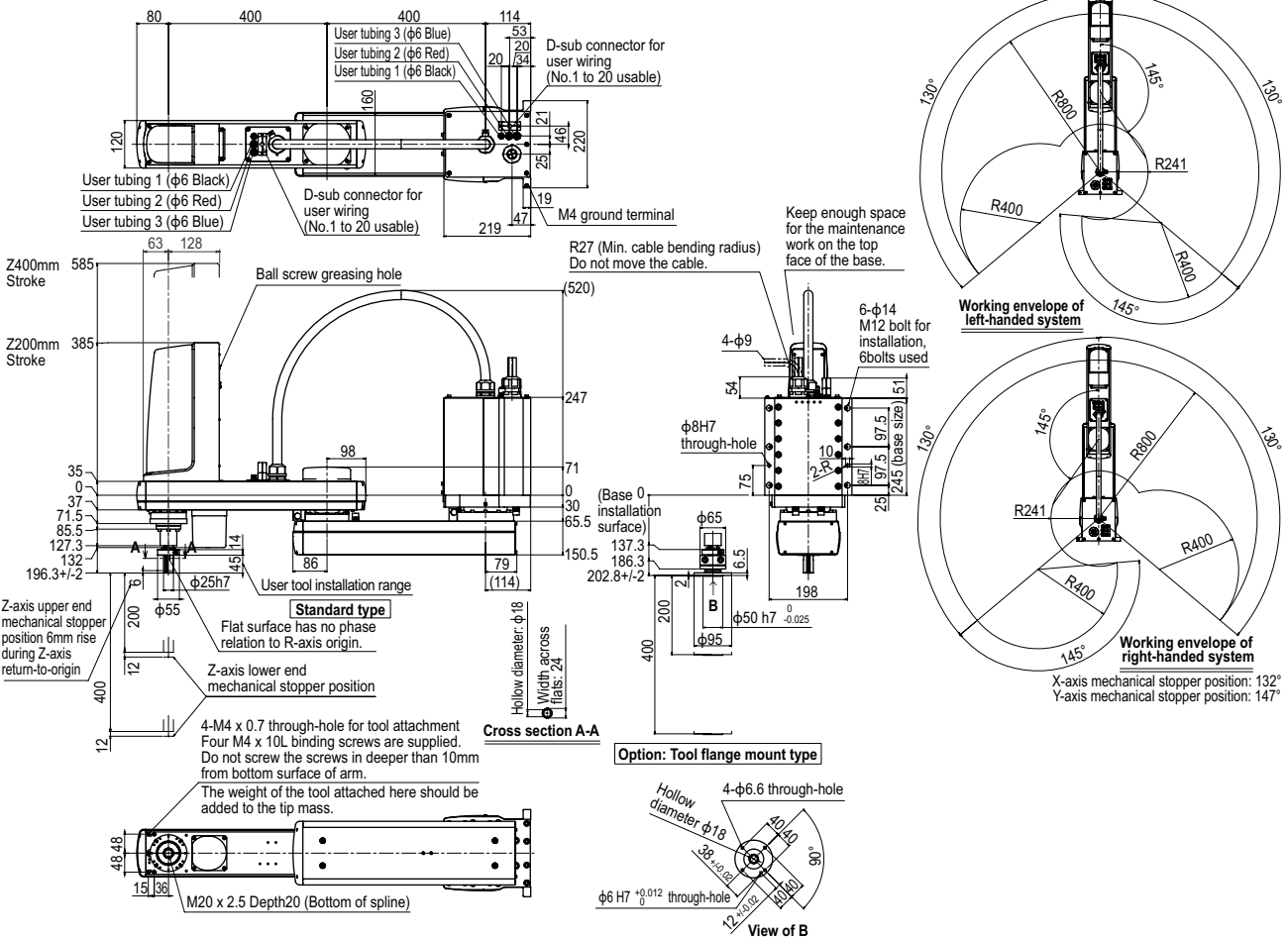
## Controller

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:  
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## YK800XGS













# YK350XGP

Dust-proof & drip-proof type

- Arm length 350mm
- Maximum payload 4kg

## Ordering method

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

<b>Model</b>	<b>Z axis stroke</b> 150: 150mm	<b>Tool flange</b> No entry: None F: With tool flange	<b>Hollow shaft</b> S: With hollow shaft	<b>Cable</b> 3L: 3.5m 5L: 5m 10L: 10m	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>
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Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

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

- Note 1. This is the value at a constant ambient temperature. (X,Y axes)  
 Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).  
 Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.  
 Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

## Controller

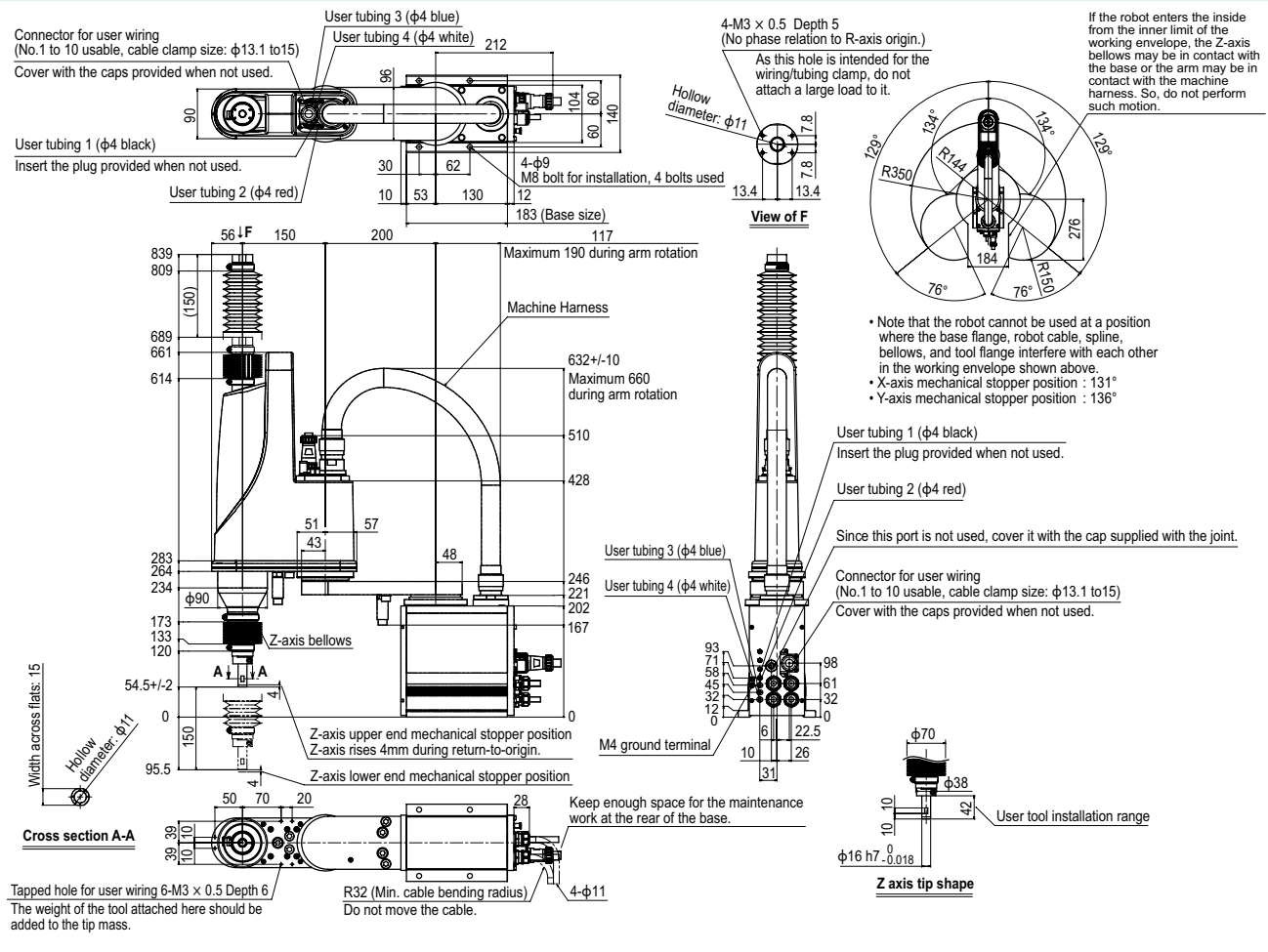
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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

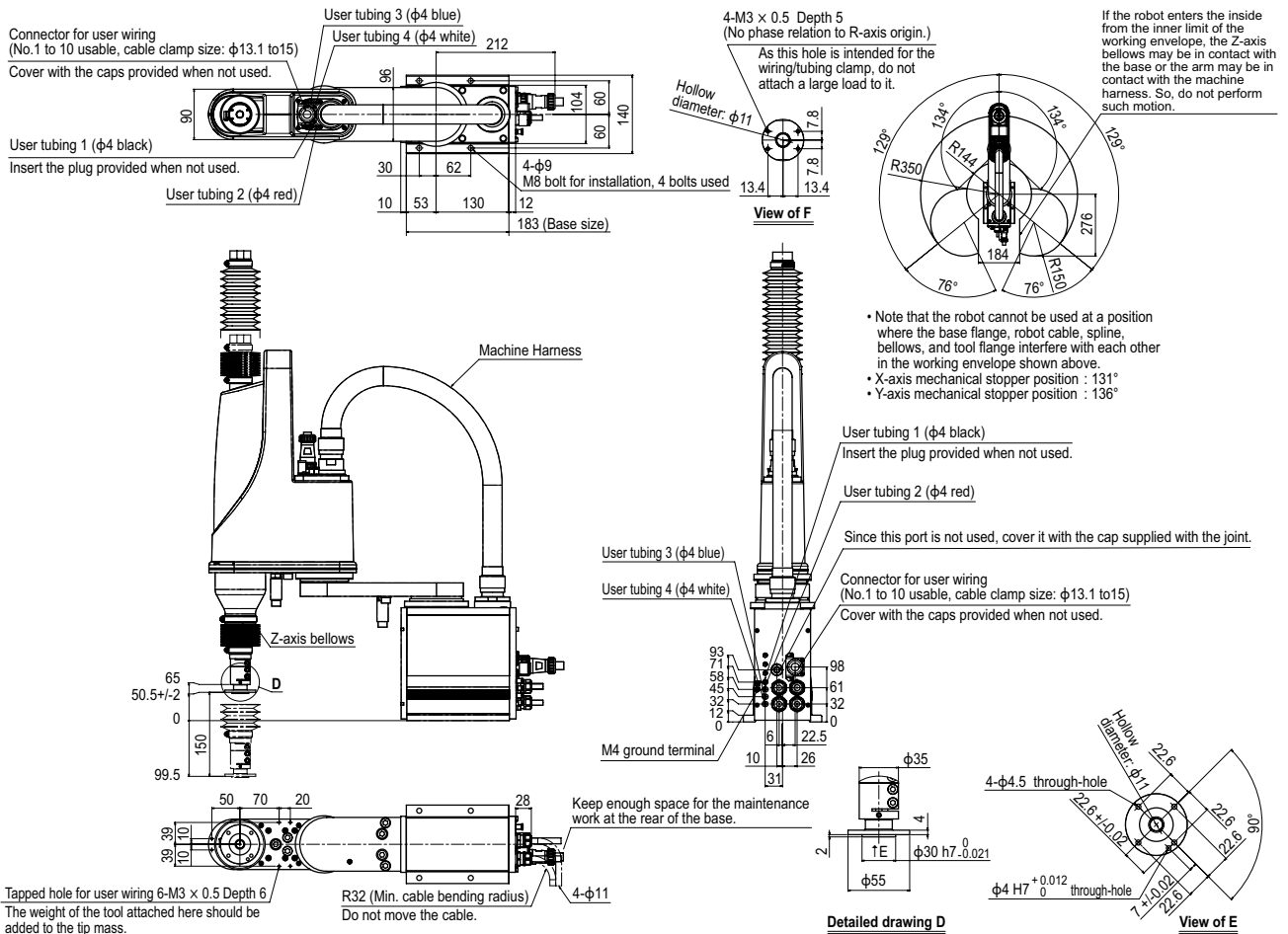
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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

## YK350XGP



## YK350XGP Tool flange mount type



# YK400XGP

Dust-proof & drip-proof type



- Arm length 400mm
- Maximum payload 4kg

## Ordering method

**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 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.566**

## 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 Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>		+/-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 <sup>Note 2</sup>		0.50 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		0.05 kgm <sup>2</sup>			
Protection class <sup>Note 4</sup>		Equivalent to IP65 (IEC 60529)			
User wiring		0.2 sq × 10 wires			
User tubing (Outer diameter)		φ 4 × 4			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		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

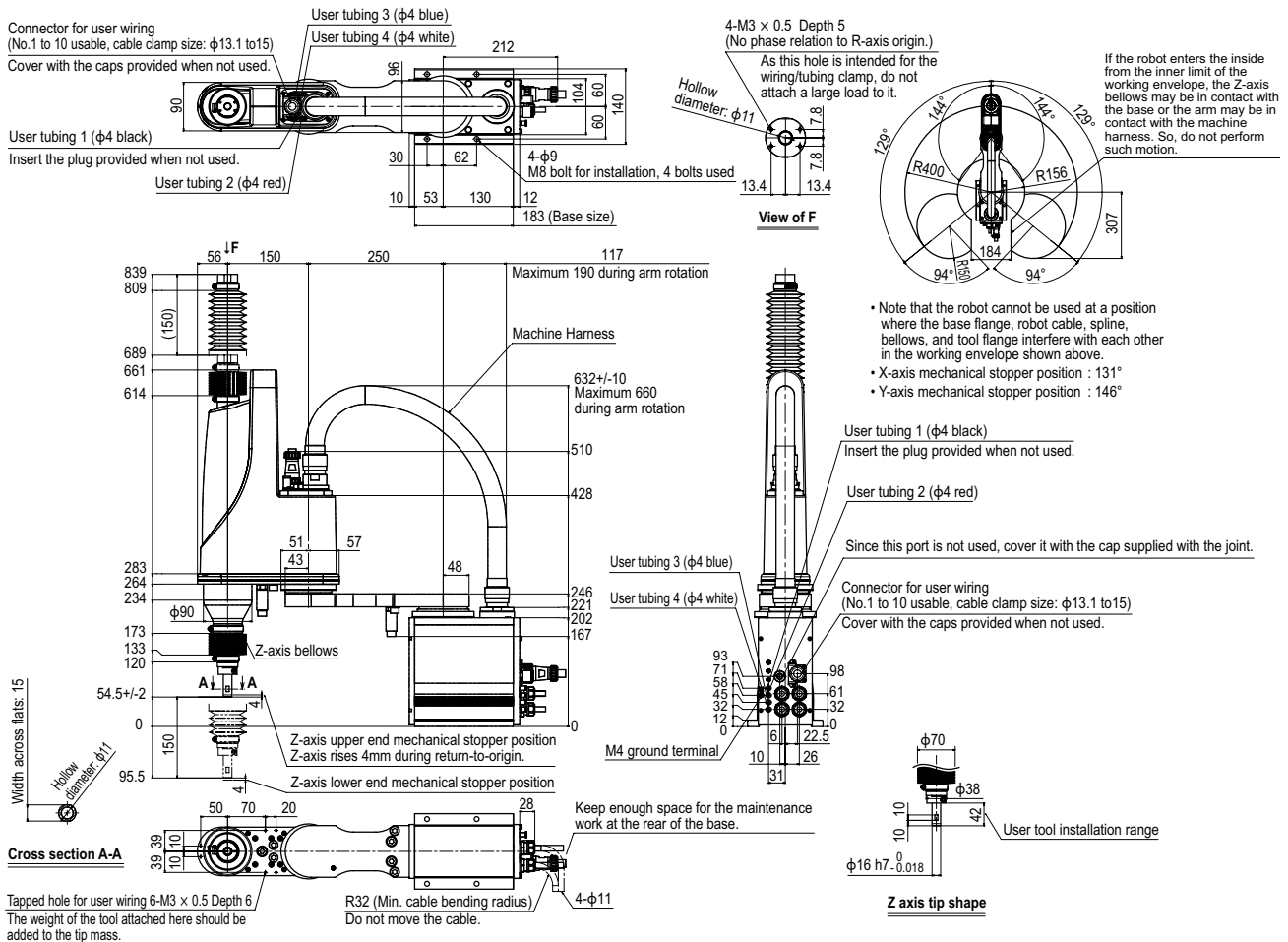
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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



Articulated robots  
YA

Linear conveyor modules  
LCM100

Motor-less single axis actuator  
Robonity

Compact single-axis robots  
TRANSEURO

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

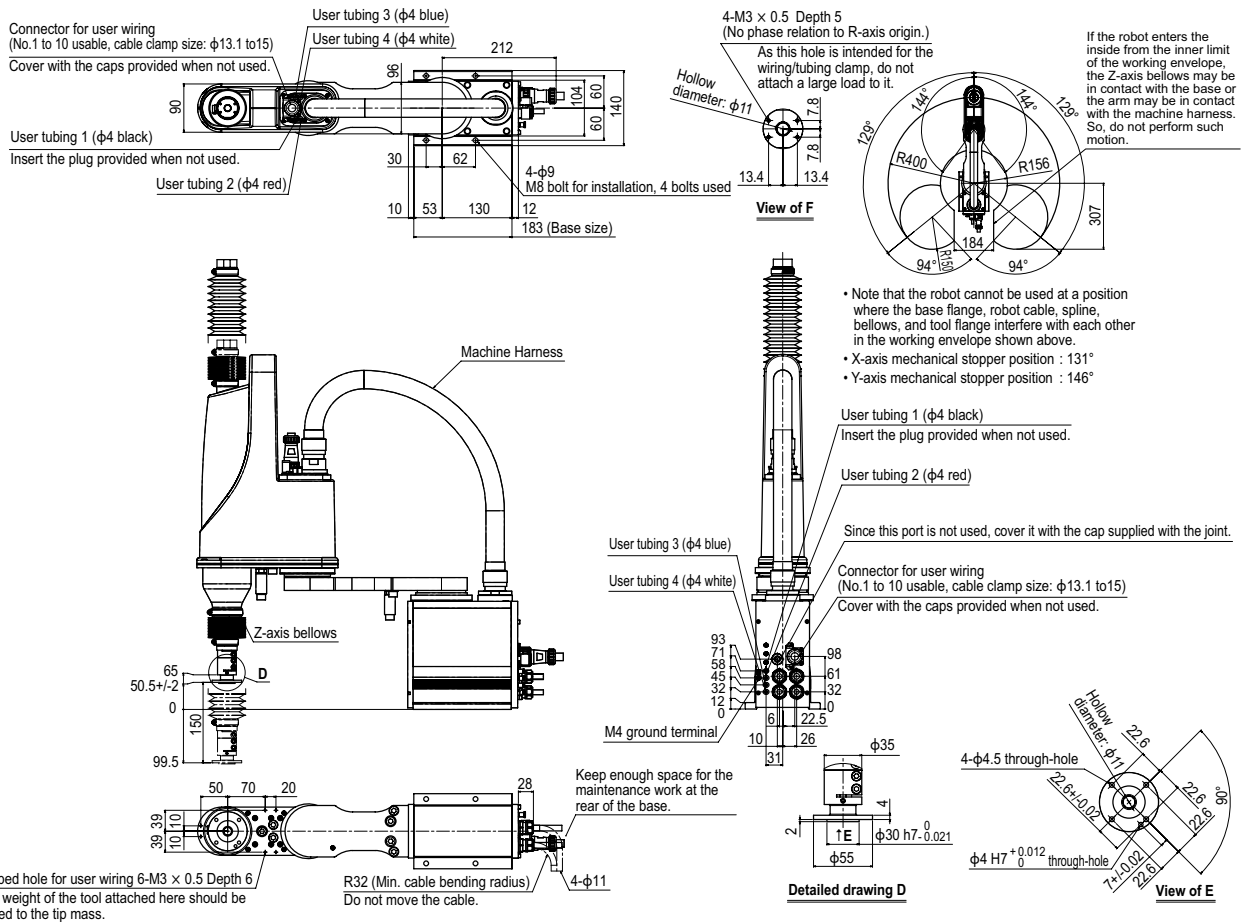
Small / Medium type

Large type

Wall mount / Inverse type

Dust-proof & drip-proof type

## YK400XGP Tool flange mount type



# 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 6L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.566**

## 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 <sup>Note 1</sup>		+/-0.01 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		5.1 m/sec	1.1 m/sec	1020 °/sec	
Maximum payload		4 kg			
Standard cycle time: with 2kg payload <sup>Note 2</sup>		0.66 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		0.05 kgm <sup>2</sup>			
Protection class <sup>Note 4</sup>		Equivalent to IP65 (IEC 60529)			
User wiring		0.2 sq 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

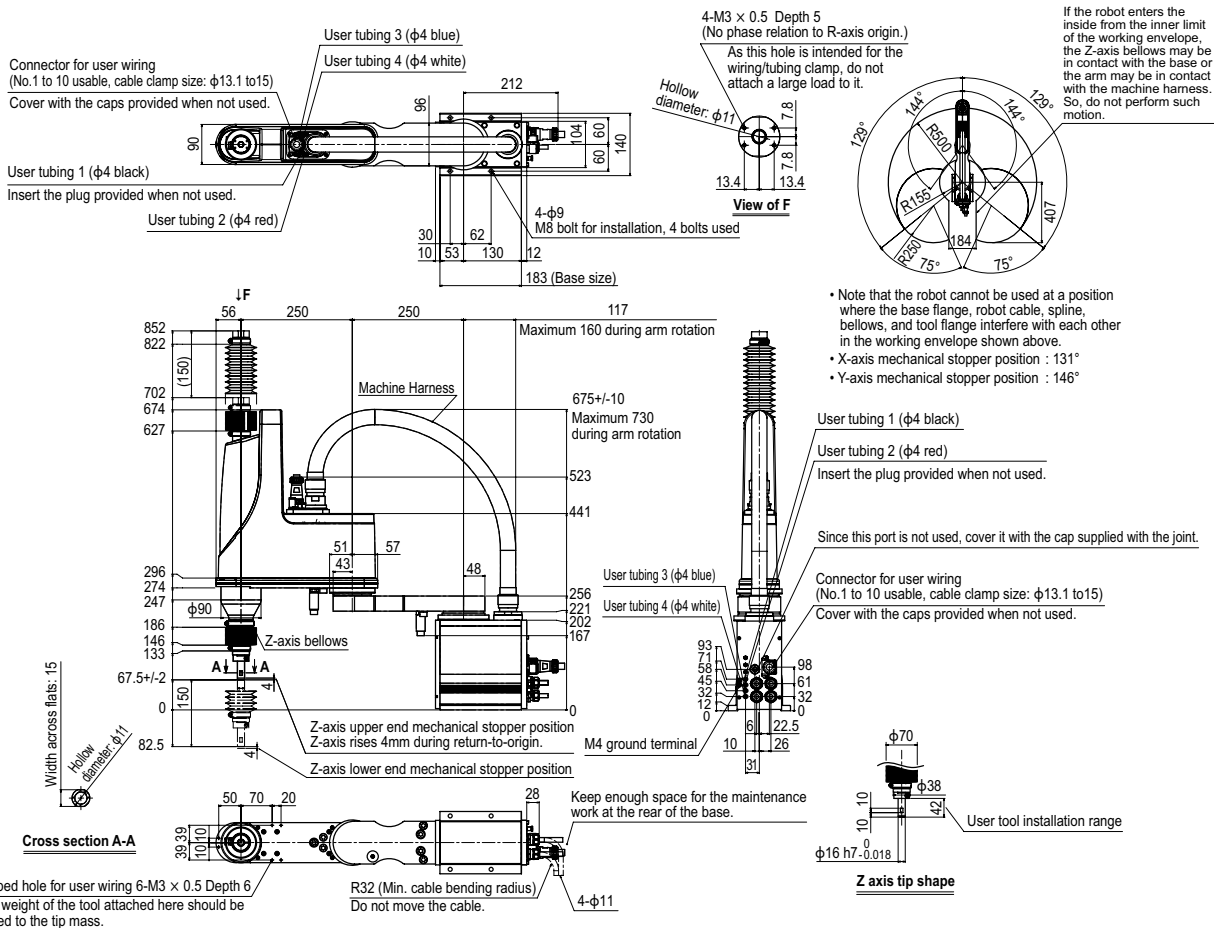
Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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



Articulated robots  
YA

Linear conveyor modules  
LCM100

Motor-less single axis reducer  
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

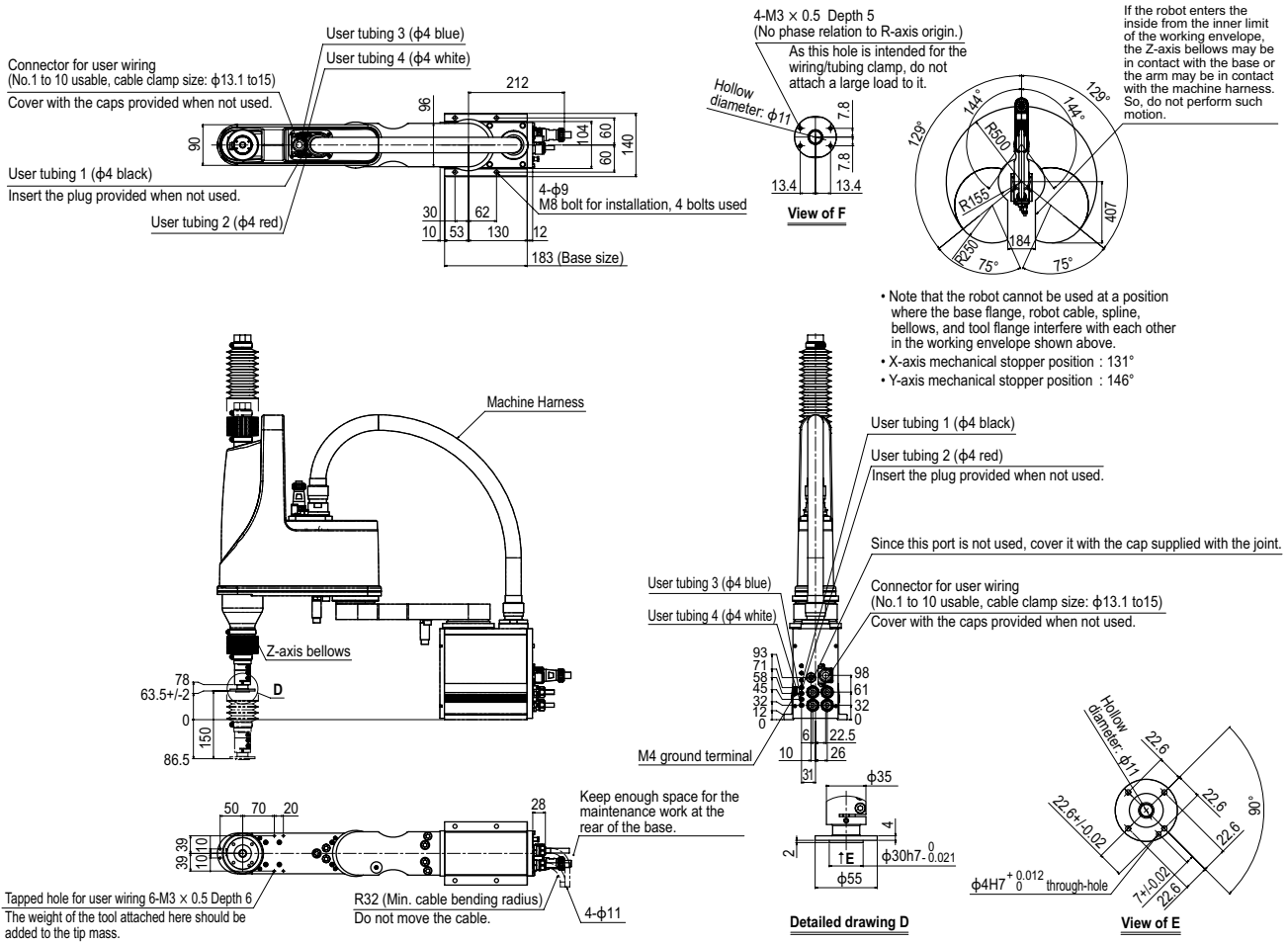
Wall mount / Inverse type

Dust-proof & drip-proof type



- Articulated robots  
**YA**
- Linear conveyor modules  
**LCM100**
- Motor-less single axis actuator  
**Robonity**
- Compact single-axis robots  
**TRANSEURO**
- 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**

## YK500XGLP Tool flange mount type



# YK500XGP

Dust-proof & drip-proof type

- Arm length 500mm
- Maximum payload 10kg

## Ordering method

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

Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

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

- Note 1. This is the value at a constant ambient temperature. (X,Y axes)  
 Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).  
 Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.  
 Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

## Controller

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

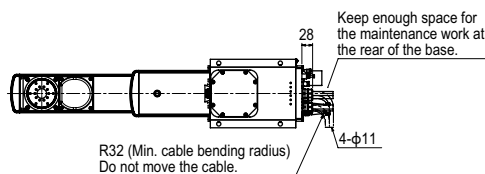
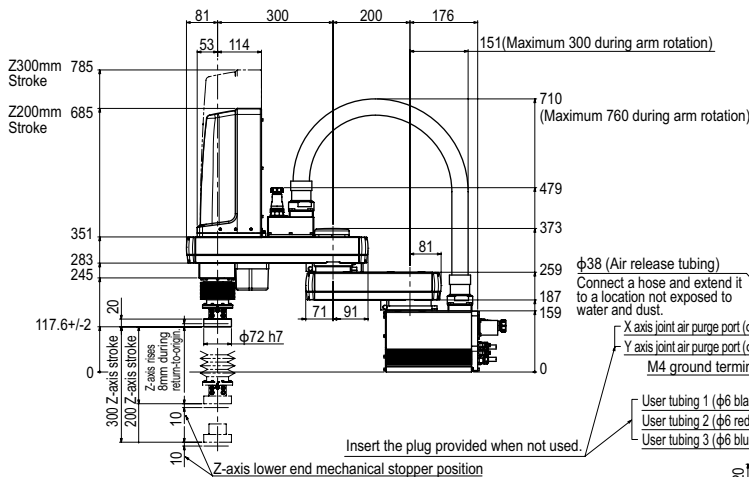
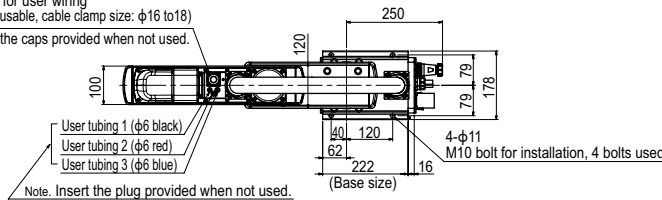
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
 See our robot manuals (installation manuals) for detailed information.

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

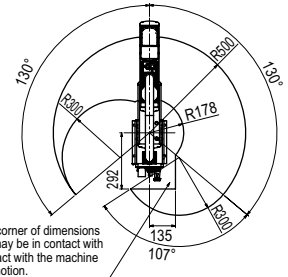
Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
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## YK500XGP

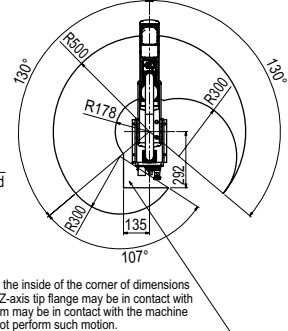
Connector for user wiring (No.1 to 20 usable, cable clamp size: φ16 to 18)  
 Cover with the caps provided when not used.



If the robot enters the inside of 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.

Articulated robots  
YA  
Linear conveyor modules  
LCM100  
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  
Oht/Extra small type  
Small / Medium type  
Large type  
Wall mount / Inverse type  
Dust-proof & drip-proof type

# 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 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.566**

## 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 <sup>Note 1</sup>		+/-0.01 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		4.9 m/sec	1.1 m/sec	1020 °/sec	
Maximum payload		4 kg			
Standard cycle time: with 2kg payload <sup>Note 2</sup>		0.71 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		0.05 kgm <sup>2</sup>			
Protection class <sup>Note 4</sup>		Equivalent to IP65 (IEC 60529)			
User wiring (sq × wires)		0.2 × 10			
User tubing (Outer diameter)		φ 4 × 4			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		26 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)  
 Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).  
 Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.  
 Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

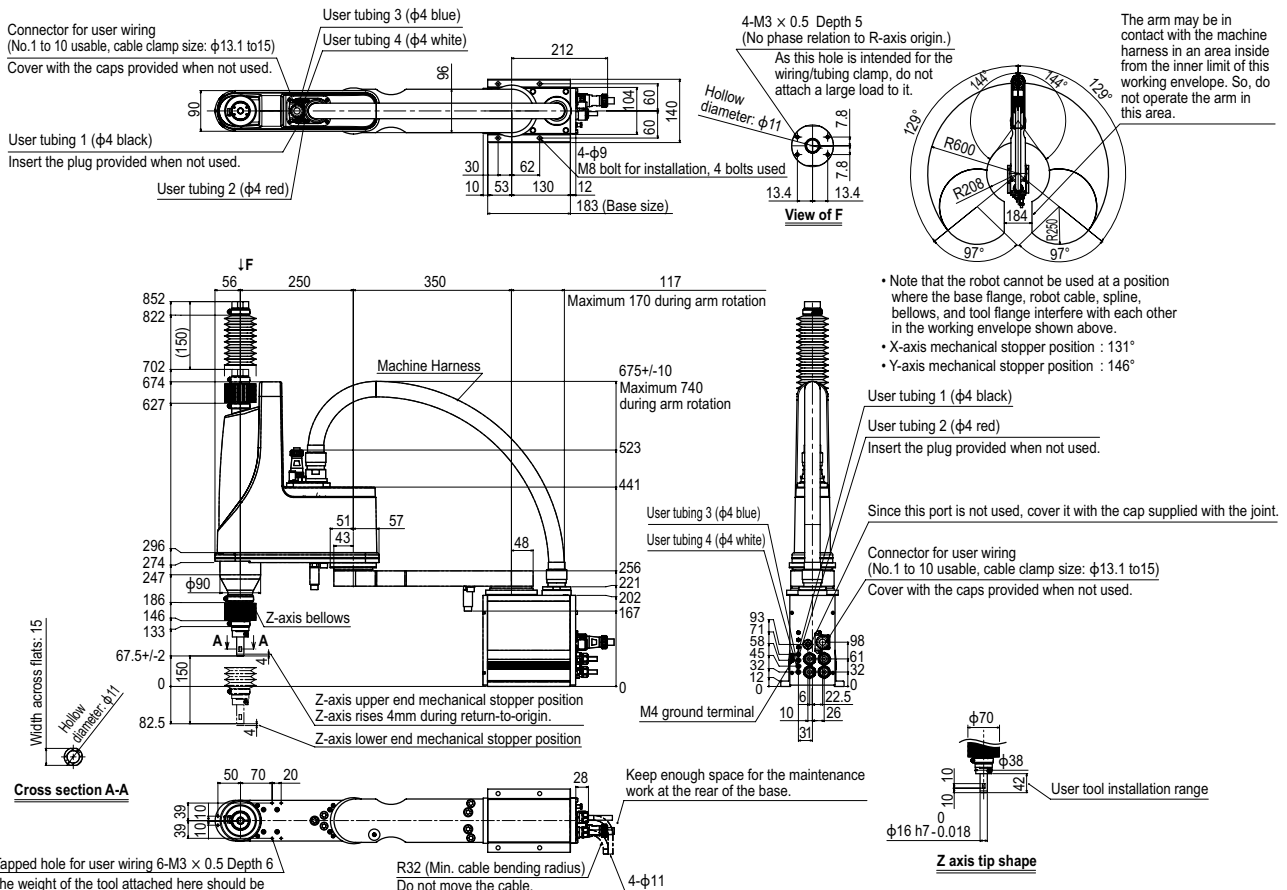
## Controller

Controller	Power capacity (VA)	Operation method
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.

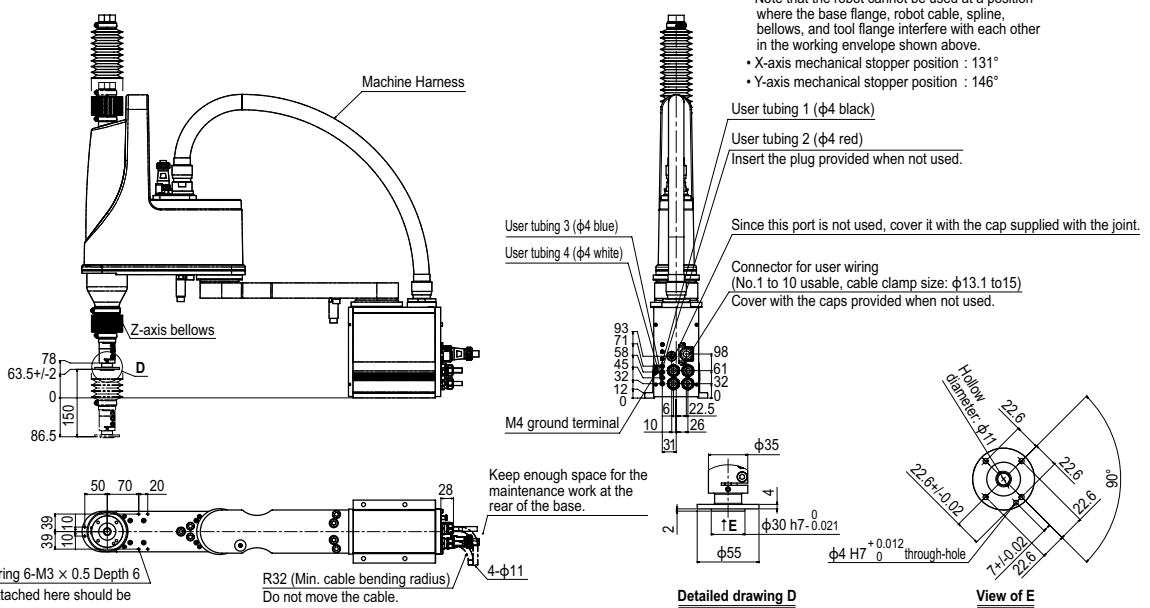
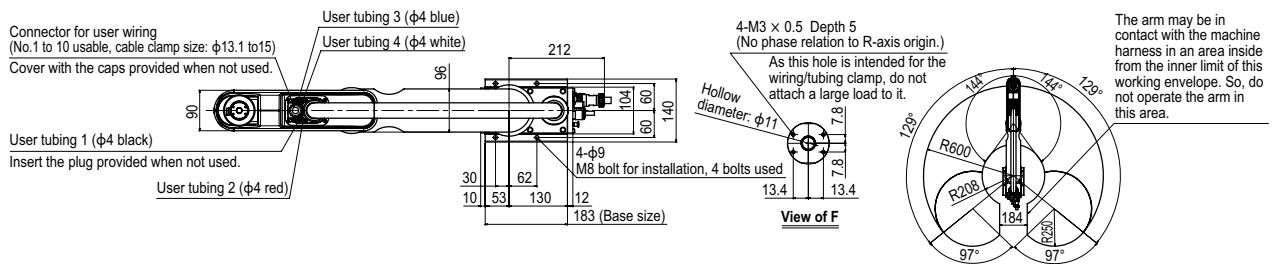
Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
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## YK600XGLP



Articulated robots
YA
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LCM100
Motor-less single axis reducer
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Compact single-axis robots
TRANSERVO
Single-axis robots
FLIP-X
Linear motor single-axis robots
PHASER
Cartesian robots
XY-X
SCARA robots
YK-X
Pick & place
YP-X
CLEAN
CONTROLLER INFORMATION
Orbit/ 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

<b>YK600XGP</b>	<b>F</b>	<b>RCX340-4</b>									
<b>Model</b>	<b>Z axis stroke</b>	<b>Tool flange</b>	<b>Cable</b>	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>
	200: 200mm 300: 300mm	F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

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

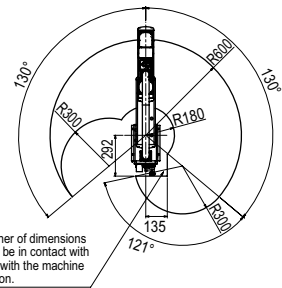
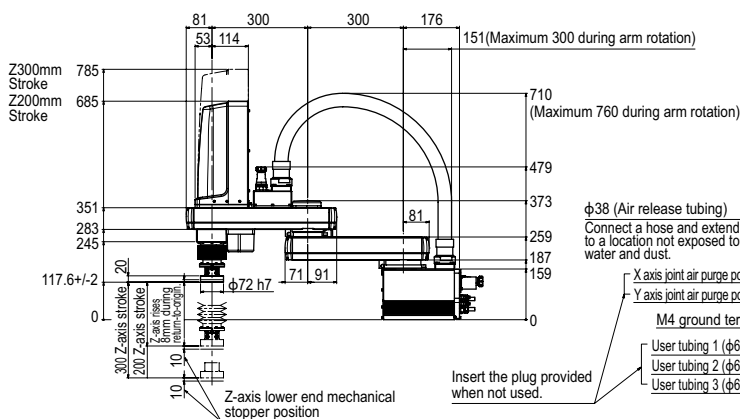
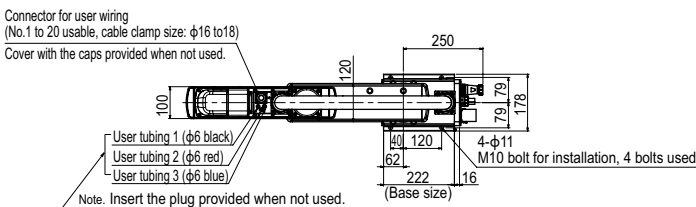
Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

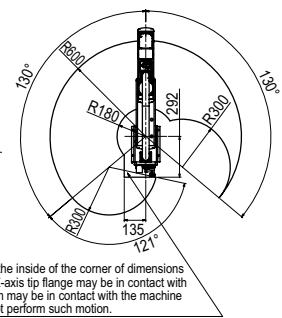
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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## YK600XGP

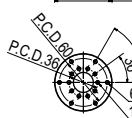
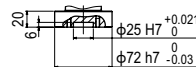


Working envelope of left-handed system



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.

Z axis tip shape



# YK600XGHP

Dust-proof & drip-proof type

- Arm length 600mm
- Maximum payload 18kg

## Ordering method

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

Specify various controller setting items. RCX340 ▶ **P.566**

## 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 <sup>Note 1</sup>		+/-0.02 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		7.7 m/sec	2.3 m/sec	1.7 m/sec	920 °/sec
Maximum payload		18 kg			
Standard cycle time: with 2kg payload <sup>Note 2</sup>		0.57 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		1.0 kgm <sup>2</sup>			
Protection class <sup>Note 4</sup>		Equivalent to IP65 (IEC 60529)			
User wiring (sq × wires)		0.2 × 20			
User tubing (Outer diameter)		φ 6 × 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		Z axis 200 mm: 52 kg Z axis 400 mm: 54 kg			

- Note 1. This is the value at a constant ambient temperature. (X,Y axes)  
 Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).  
 Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.  
 Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

## Controller

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

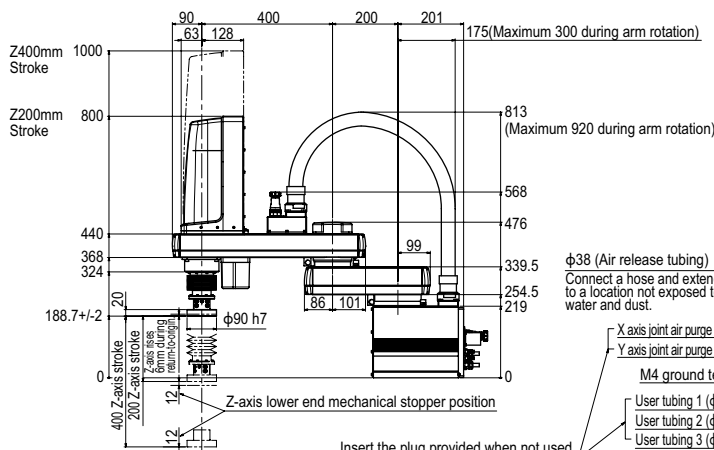
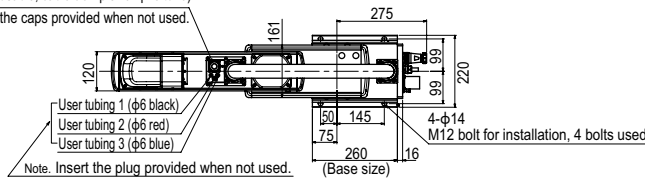
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
 See our robot manuals (installation manuals) for detailed information.

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

Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
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## YK600XGHP

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



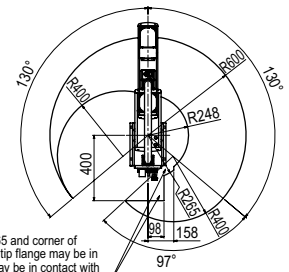
φ38 (Air release tubing)  
 Connect a hose and extend it to a location not exposed to water and dust.

X axis joint air purge port (φ6)  
 Y axis joint air purge port (φ6)  
 M4 ground terminal

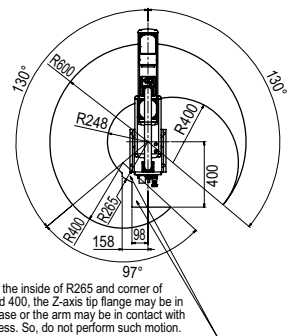
User tubing 1 (φ6 black)  
 User tubing 2 (φ6 red)  
 User tubing 3 (φ6 blue)

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.



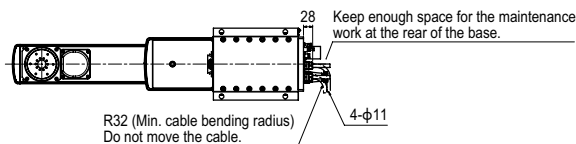
Working envelope of left-handed system



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

Articulated robots  
YA  
Linear conveyor modules  
LCM100  
Motor-assist single axis reducer  
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  
Oht/Extra small type  
Small / Medium type  
Large type  
Wall mount / Inverse type  
Dust-proof & drip-proof type

# YK700XGP

Dust-proof & drip-proof type



- Arm length 700mm
- Maximum payload 20kg

## Ordering method

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

Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

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

Note 1. This is the value at a constant ambient temperature. (X,Y axes)  
 Note 2. When reciprocating 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.

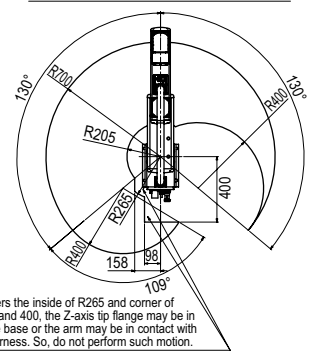
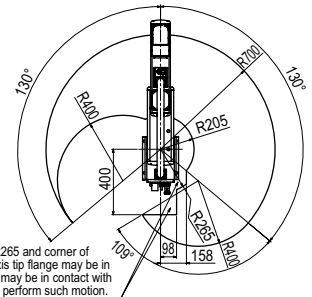
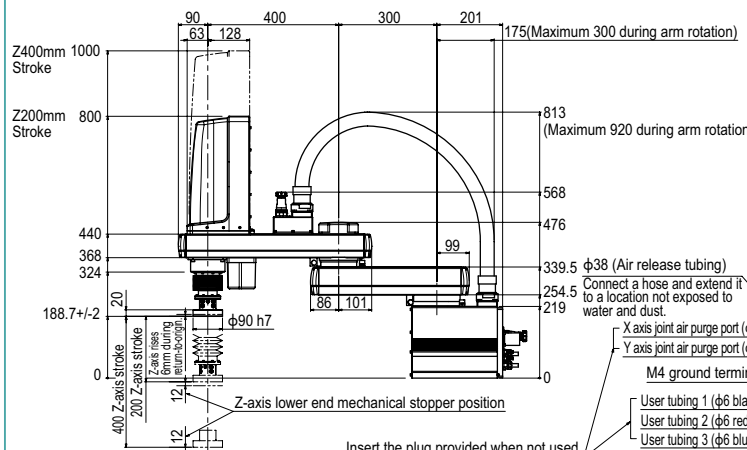
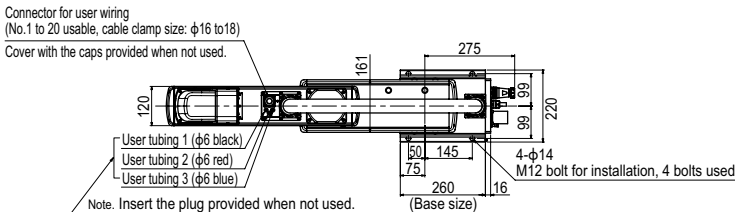
## Controller

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

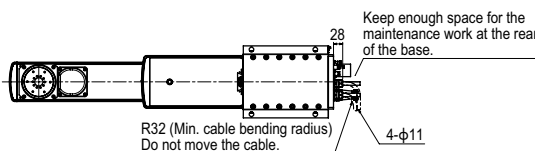
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
 See our robot manuals (installation manuals) for detailed information.  
 Note. To set the standard coordinates with high accuracy,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

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## YK700XGP



- 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°



# YK800XGP

Dust-proof & drip-proof type

- Arm length 800mm
- Maximum payload 20kg

## Ordering method

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

Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

		X-axis	Y-axis	Z-axis	R-axis
<b>Axis specifications</b>	<b>Arm length</b>	400 mm	400 mm	200 mm / 400 mm	—
	<b>Rotation angle</b>	+/-130 °	+/-150 °	—	+/-360 °
<b>AC servo motor output</b>		750 W	400 W	400 W	200 W
<b>Deceleration mechanism</b>	<b>Transmission method</b>	Direct-coupled			
	<b>Motor to speed reducer</b> <b>Speed reducer to output</b>	Direct-coupled			
<b>Repeatability</b> <sup>Note 1</sup>		+/-0.02 mm	+/-0.01 mm	+/-0.004 °	
<b>Maximum speed</b>		9.2 m/sec	2.3 m/sec / 1.7 m/sec	920 °/sec	
<b>Maximum payload</b>		20 kg			
<b>Standard cycle time: with 2kg payload</b> <sup>Note 2</sup>		0.58 sec			
<b>R-axis tolerable moment of inertia</b> <sup>Note 3</sup>		1.0 kgm <sup>2</sup>			
<b>Protection class</b> <sup>Note 4</sup>		Equivalent to IP65 (IEC 60529)			
<b>User wiring</b>		0.2 sq × 20 wires			
<b>User tubing (Outer diameter)</b>		φ 6 × 3			
<b>Travel limit</b>		1. Soft limit 2. Mechanical stopper (X,Y,Z axis)			
<b>Robot cable length</b>		Standard: 3.5 m Option: 5 m, 10 m			
<b>Weight</b>		Z axis 200 mm: 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

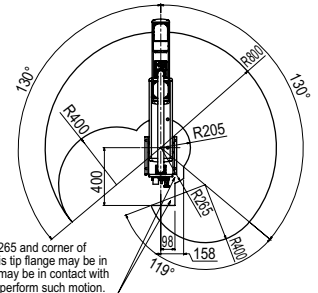
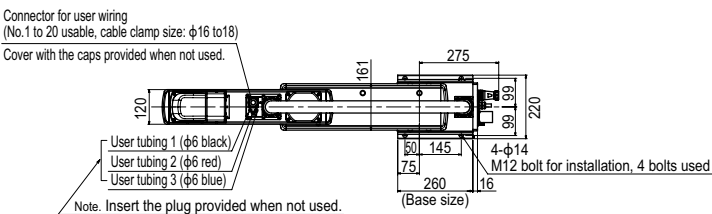
Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

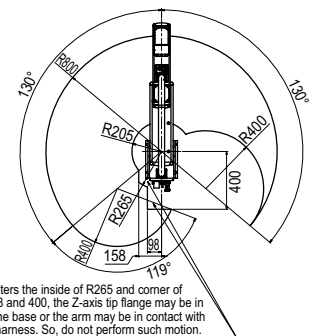
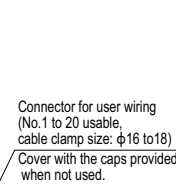
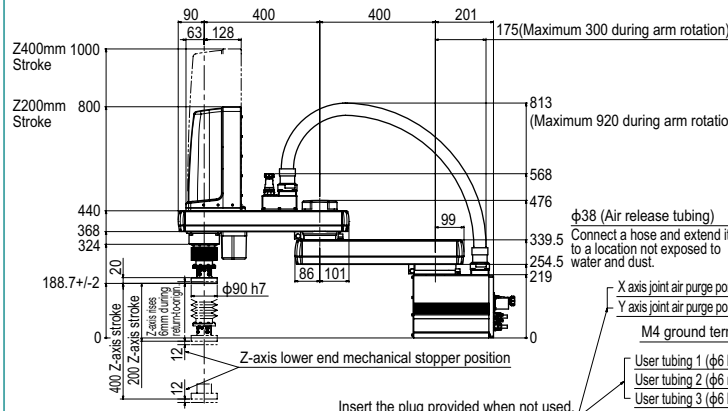
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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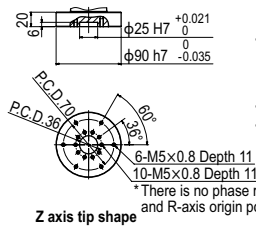
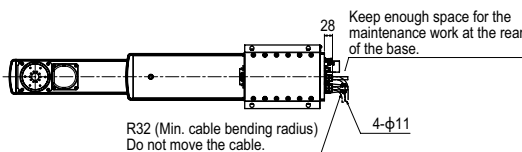
## YK800XGP



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.



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°

Articulated robots  
 YA  
 Linear conveyor modules  
 LCM100  
 Motor-assist 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  
 Oht/ Small / Medium type  
 Large type  
 Wall mount / Inverse type  
 Dust-proof & drip-proof type

# 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.566**

## 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	Direct-coupled			
Repeatability	Speed reducer to output	Direct-coupled			
	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		0.59 sec			
R-axis tolerable moment of inertia		1.0 kgm <sup>2</sup>			
Protection class		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.

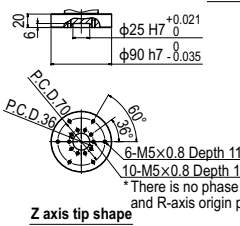
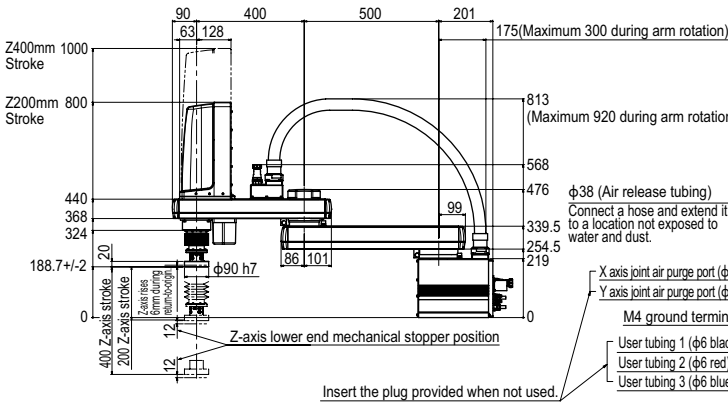
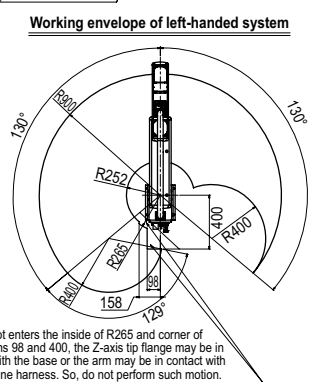
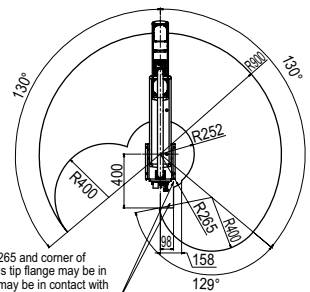
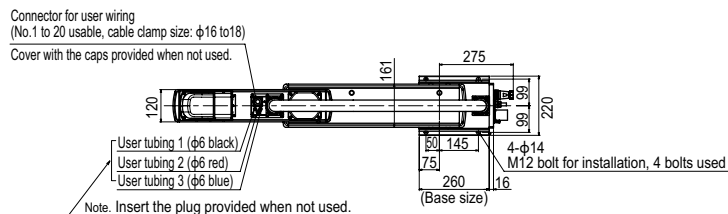
## Controller

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.

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## YK900XGP





# YK1000XGP

Dust-proof & drip-proof type

- Arm length 1000mm
- Maximum payload 20kg

## Ordering method

<b>YK1000XGP</b>		<b>F</b>		<b>RCX340-4</b>							
<b>Model</b>	<b>Z axis stroke</b>	<b>Tool flange</b>	<b>Cable</b>	<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>
	200: 200mm 400: 400mm	F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.566**

## Specifications

		X-axis	Y-axis	Z-axis	R-axis
<b>Axis specifications</b>	<b>Arm length</b>	600 mm	400 mm	200 mm	—
	<b>Rotation angle</b>	+/-130 °	+/-150 °	—	+/-360 °
<b>AC servo motor output</b>		750 W	400 W	400 W	200 W
<b>Deceleration mechanism</b>	<b>Transmission method</b>	Direct-coupled			
	<b>Motor to speed reducer</b> <b>Speed reducer to output</b>	Direct-coupled			
<b>Repeatability</b> <sup>Note 1</sup>		+/-0.02 mm	+/-0.01 mm	+/-0.004 °	
<b>Maximum speed</b>		10.6 m/sec	2.3 m/sec	1.7 m/sec	920 °/sec
<b>Maximum payload</b>		20 kg			
<b>Standard cycle time: with 2kg payload</b> <sup>Note 2</sup>		0.59 sec			
<b>R-axis tolerable moment of inertia</b> <sup>Note 3</sup>		1.0 kgm <sup>2</sup>			
<b>Protection class</b> <sup>Note 4</sup>		Equivalent to IP65 (IEC 60529)			
<b>User wiring (sq × wires)</b>		0.2 × 20			
<b>User tubing (Outer diameter)</b>		φ 6 × 3			
<b>Travel limit</b>		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
<b>Robot cable length</b>		Standard: 3.5 m Option: 5 m, 10 m			
<b>Weight</b>		Z axis 200 mm: 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.  
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## Controller

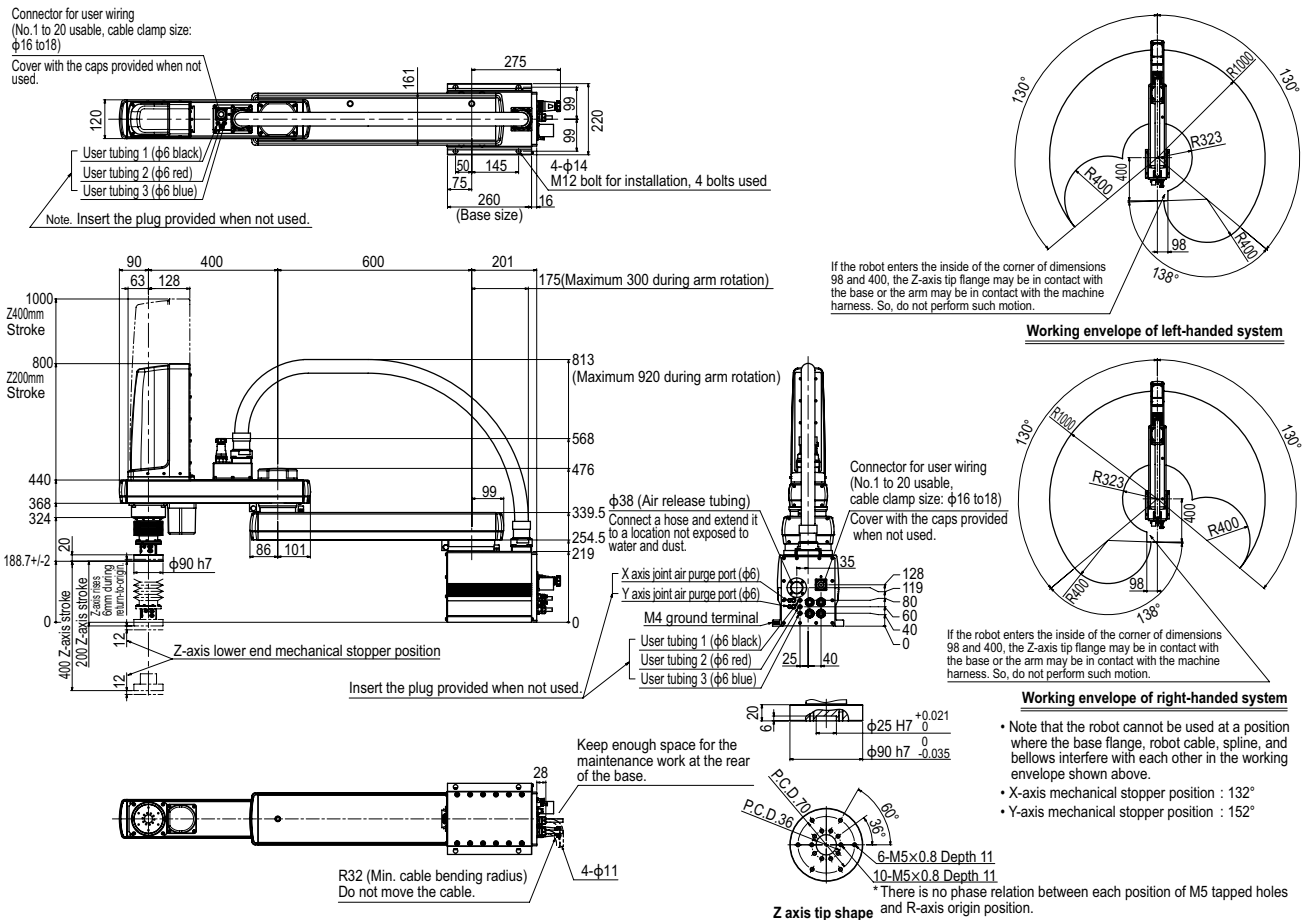
Controller	Power capacity (VA)	Operation method
RCX340	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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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