

YP-X  
Series

# PICK & PLACE ROBOTS

Ideal for high-speed pick & place tasks using small parts!  
Positioning is by servo control so no complex mechanical adjustments are needed!

2 axes



YP220BX / YP320X

3 axes



YP220BRX / YP320XR / YP330X

4 axes

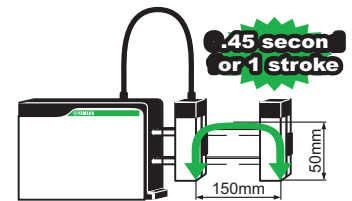


YP340X

## This is why the YP-X is terrific!

### 1 High speed

Super high speed pick & place operation at 0.45sec cycle time as standard contributes largely to higher productivity (YP220BX under operation conditions of 50mm in vertical direction, 150mm in longitudinal direction, 50 in arch volume and 1kg load). As it is possible to output a signal to turn ON/OFF any external equipment from any position while the axis is moving, the actual production cycle time is further reduced.



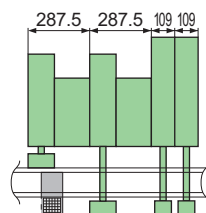
### 2 Compact size

Designed as compact as 109mm in width (YP220BX), it is possible to make the production line small and simple. The moving arm structure with less interference area in periphery contributes to saving space.

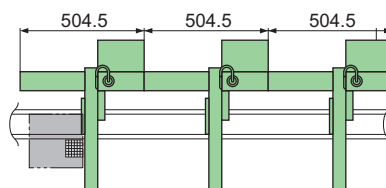
#### Reference example of comparison of robot layouts

Comparison of space occupied by the YP X series and by our small sized robots of Cartesian robot and SCARA robot allows you to confirm the compactness of the YP X series when they are installed to an assembly line.

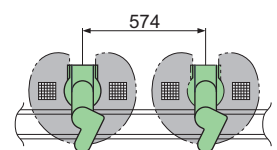
● An assembly line using the pick & place excellent in space saving property.



● An assembly line using the PXYx, Yamaha's compact size Cartesian robot.  
Stroke of X axis: 250mm  
Stroke of Y axis: 250mm



● An assembly line using the YK250X, Yamaha's compact size SCARA robot



### 3 High precision

Both outstanding high-speed performance and high precision of +/-0.02mm (YP320X, YP320XR, YP330X, YP340X) are assured.

### 4 General use

Owing to YAMAHA's unique servo system, settings for the stop point and operation pattern can be programmed freely. This provides outstanding applicability to production of multiple number of items in a small lot which is difficult with a cam type robot.



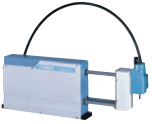
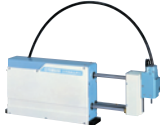

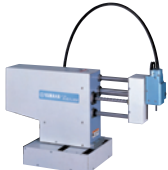
### 5 Complete absolute position system

As complete absolute position system is adopted as standard specification, the origin return operation is not necessary.

### 6 Fully assorted line-up

Full line-up of 6 models in all from 2 axes type to 4 axes type selectable for each use purpose.

## YP-X easy selection table

2 axes		Structure		Maximum payload (kg)	Cycle time (sec)	Model	Detailed info page
		X axis	Belt				
		Z axis	Belt	3	0.45	YP220BX	<a href="#">P.304</a>
		Structure		Maximum payload (kg)	Cycle time (sec)	Model	Detailed info page
		X axis	Ball screw				
		Z axis	Belt	3	0.57	YP320X	<a href="#">P.305</a>
3 axes		Structure		Maximum payload (kg)	Cycle time (sec)	Model	Detailed info page
		X axis	Belt				
		Z axis	Belt				
		R axis	Rotation axis	1	0.62	YP220BXR	<a href="#">P.306</a>
		Structure		Maximum payload (kg)	Cycle time (sec)	Model	Detailed info page
		X axis	Ball screw				
		Z axis	Belt				
		R axis	Rotation axis	1	0.67	YP320XR	<a href="#">P.307</a>
4 axes		Structure		Maximum payload (kg)	Cycle time (sec)	Model	Detailed info page
		X axis	Ball screw				
		Y axis	Ball screw				
		Z axis	Belt	3	0.57	YP330X	<a href="#">P.308</a>
		Structure		Maximum payload (kg)	Cycle time (sec)	Model	Detailed info page
		X axis	Ball screw				
		Y axis	Ball screw				
		Z axis	Belt				
		R axis	Rotation axis	1	0.67	YP340X	<a href="#">P.309</a>