

**TOSHIBA**

# Piece-picking Robot



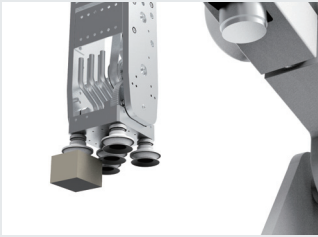
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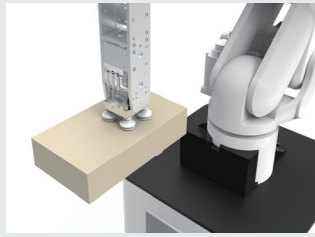
## Specialized grippers ensure careful handling of various items

### Grippers and handling method automatically change to suit the item

#### Secure gripper control

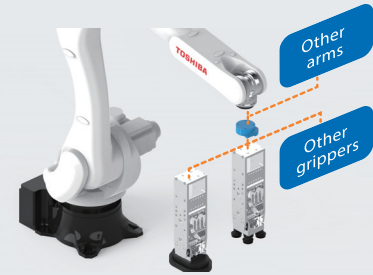


One suction pad can handle small items.



Bigger items are handled by all suction pads.

#### A single arm, multiple grippers



The automatic changer chooses the best gripper for each item.

### Advanced image processing supports image recognition and space-efficient packing

Dual cameras boost image recognition, without prior programming.

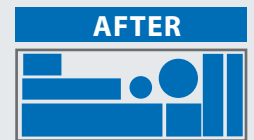
RGB camera  
+  
3D camera



Items are optimally packed by using measurement data.



Packing items at random raises the risk of damage.



Packing items carefully without empty space.

## Interaction with automated storage systems improves operating efficiency

### Advantages of the piece-picking robot



#### Safe, stable operation

Eliminate operator error and picking mistakes



#### Easy installation

Install without modification of upper system such as WMS\*

\*WMS: Warehouses Management System

Smooth interaction with automated storage raises efficiency

## Specifications

Item	Description (Robot with middle-size arm)	Description (Robot with small-size arm)
Gripper type	5 suction pads (with individual control of each pad)	4 suction pads (with 2 pad-combined control)
Applicable containers	Tray with a height of 340mm and lower; partitions in tray okay	
Max. item size (mm)	500 × 300 × 200 (depending on gripper hand)	250 × 200 × 100 (depending on gripper hand)
Max. item weight (kg)	Up to 7	Up to 1
Dimensions (mm)	2500 × 2500 × 3000 (excluding control equipment and air compressors)	3500 × 2500 × 2200 (excluding control equipment and air compressors)
Weight (kg)	Under 530 (excluding control equipment and air compressors)	Under 410 (excluding control equipment and air compressors)
Throughput (pph)	240 with space-efficient packing (varies with stacking and item conditions)	500 without space-efficient packing (varies with stacking and item conditions)
Environmental conditions	Ambient temperature : 5 to 35℃, Relative humidity: 35 to 85%RH (Non condensing)	

\*It may vary with combination of arms and grippers.

## Toshiba Infrastructure Systems & Solutions Corporation

Security & Automation Systems Division International Sales & Marketing Department

<https://www.toshiba.co.jp/sis/en/scd/logistics/index.htm>  
72-34, Horikawa-cho, Saiwai-ku Kawasaki 212-8585, Japan Tel: +81-44-331-1686

Info available online



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