CT4 High-speed Cartesian Robot

by ajimenezwp639 - Friday, December 21, 2012

http://www.intelligentactuator.com/ct4-high-speed-cartesian-robot/

High-speed Cartesian Robot That Shortens Assembly/Inspection Cycle Times by Operating at High Speed, Ensuring High Rigidity and Demonstrating Excellent Straight Moving Performance
High-speed operation with commanded acceleration of up to 3.2 G
(maximum instantaneous acceleration: 4.8 G)

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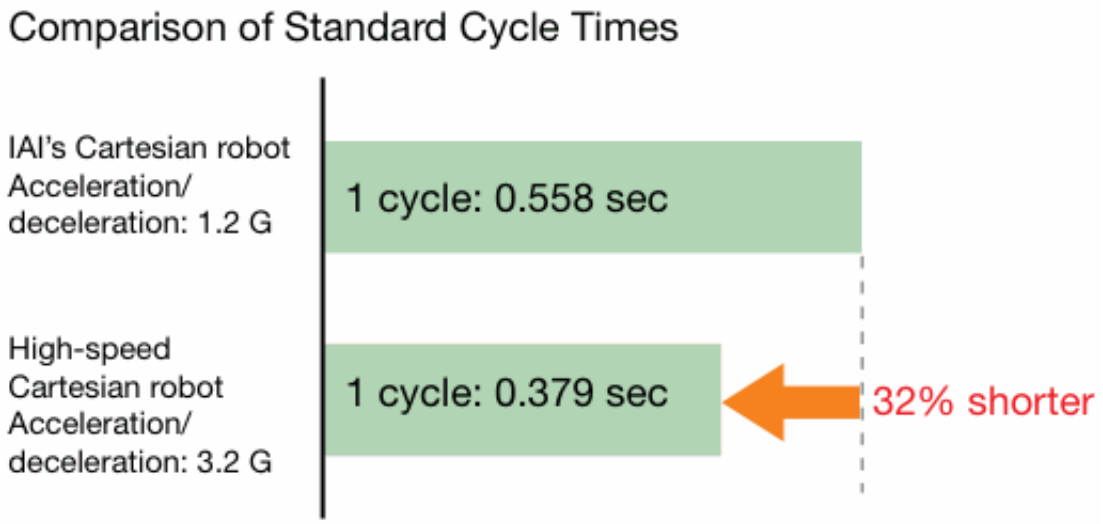
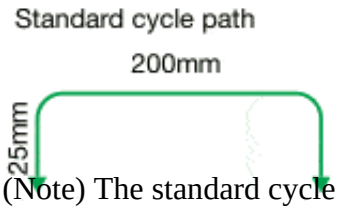
1. High Speed & High Acceleration/Deceleration

Shorten the cycle time of your equipment by operating at the maximum speed of **2500 mm/s** and maximum acceleration of **3.2 G**. The standard cycle time is 32% less than a conventional Cartesian robot.

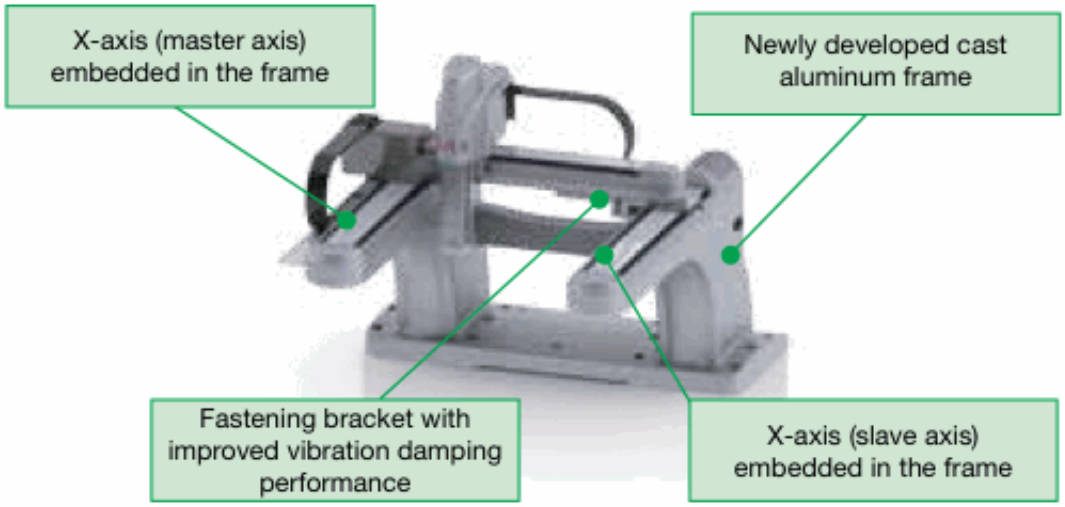

Comparison of Standard Cycle Times
IAI's Cartesian robot
Acceleration/
deceleration: 1.2 G
1 cycle: 0.558 sec
High-speed
Cartesian robot
Acceleration/
deceleration: 3.2 G
1 cycle: 0.379 sec
32% shorter



(Note) The standard cycle time represents the time required for going back and forth along the path shown to the right, consisting of a vertical movement of 25 mm and horizontal movement of 200 mm.

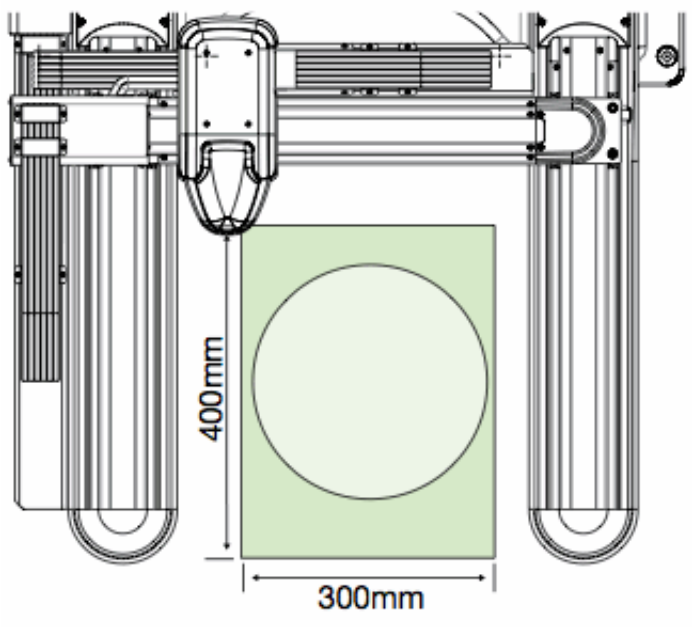
2. High Rigidity, Low Vibration

The newly developed dedicated cast aluminum frame ensures high rigidity. Also, the improved shape and vibration damping performance of the fastening brackets for XY-axes reduced the vibration at the tip of the Z-axis, while the vibration control function of the XSEL controller achieved substantial reduction of vibration during high-speed operation.



3. Efficient Operation Range

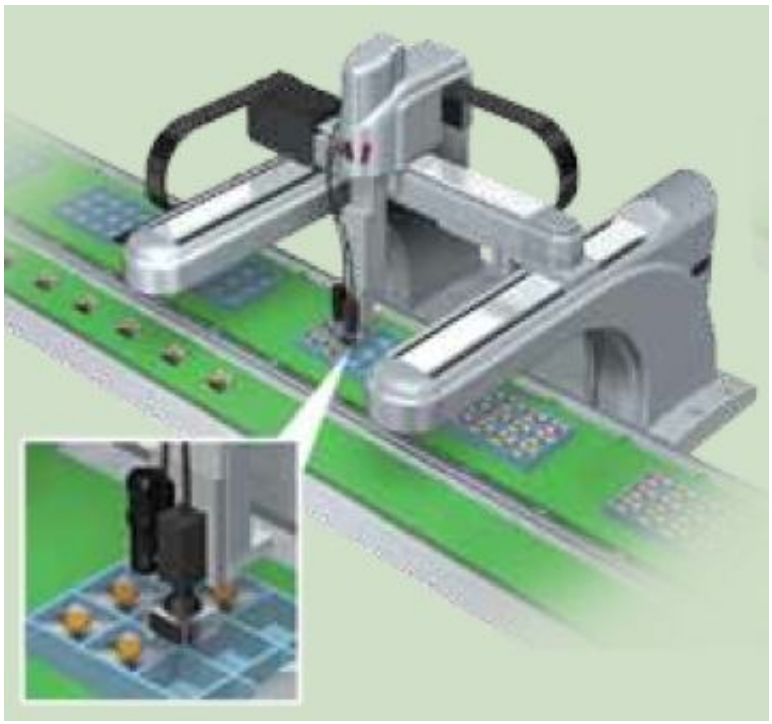
A wide operation range of 400 mm (X-axis) x 300 mm (Y-axis) is ensured. Square operation ranges have no wasteful space and are more efficient compared to those of multi-jointed robots and parallel-link robots that can only operate in circles due to their structure.



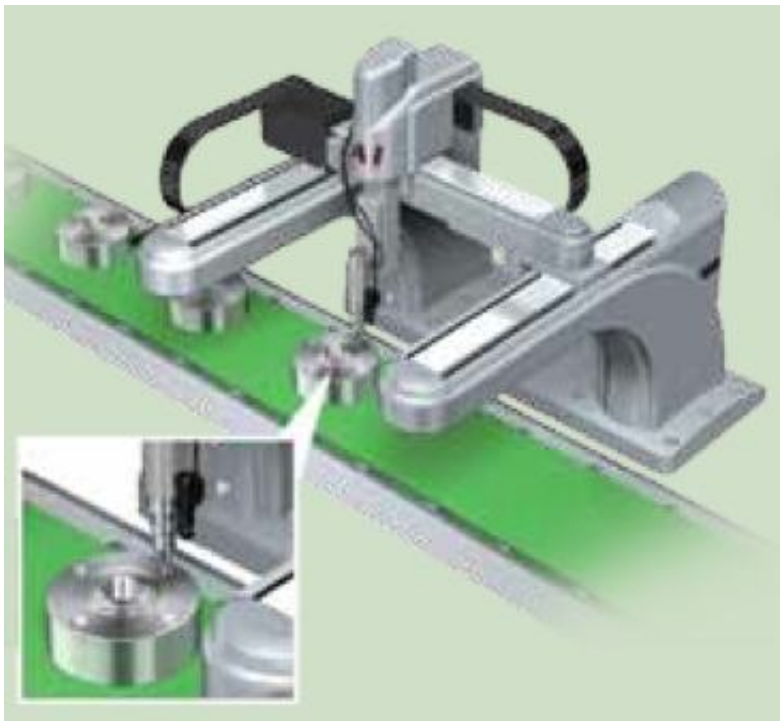
4. Straight Moving Performance

The high-speed Cartesian robot combines single-axis robots each performing linear motion, in order to demonstrate excellent straight moving performance.

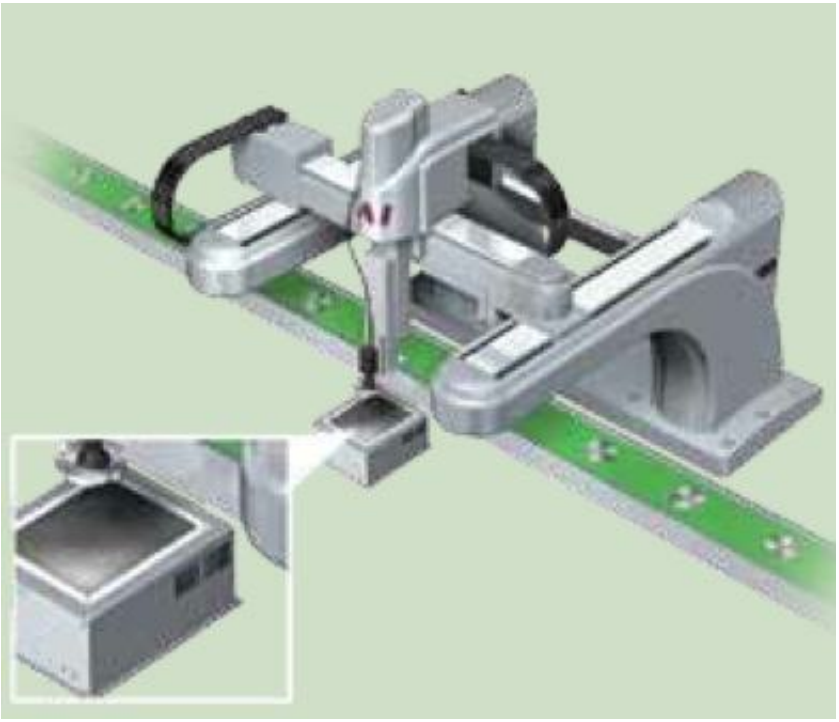
Examples of Applications



Packing electronic components in boxes.
(High-speed Cartesian robot + vision sensor)



Screwing automobile parts.
(High-speed Cartesian robot + vision sensor)



Feeding/taking out work parts to/from a part inspection machine.
(High-speed Cartesian robot)

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loadLinkedin_5167(){ jQuery(document).ready(function($) {
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