Speed - Elevating Productivity to New Heights

A Stock Unit that Does High-Speed Take-Out
Fully upgraded vertical and kick axis units provide a huge jump in part extraction speed!

Take-Out Time Comparison

- Target molding machine clamping force 150-ton class: 13% faster
- Target molding machine clamping force 400-ton class: 12% faster
- Target molding machine clamping force 600-ton class: 13% faster
- Target molding machine clamping force 800-ton class: 14% faster
- Target molding machine clamping force 1300-ton class: 14% faster

Savings - Lower Running Costs

ECO Vacuum PAT. P Compressed Air Economizing Tool
Monitors air pressure while robot suction-grips parts and only turns on air lines when necessary.

<table>
<thead>
<tr>
<th>Lowers Electricity Cost for Air Compressors</th>
<th>Reduces Equipment Cost</th>
<th>Helps Protect the Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Real-Life Results)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Air Consumption 75% Down

Reliability - Boost your Production Floor Efficiency

Vibration-free, Precise Picking and Placing of Products
The RCII series features even more rigid, robust construction and new arm-end vibration suppression!

Easy-to-Use E-Touch II Controller
- Large, Highly Visible Monitor
  - 10.4 inch, full-color touch panel
- Extra Tough Construction
  - Rubber shock panels on each side of the controller help cushion accidental drops.
  - IP44* Rating for Dust and Moisture Resistance
- Easy Operation
  - Directional pad makes navigating easy.
  - Settings and menus are icon-based.
  - Audio Guidance gives vocal cues to support complex operations.

Other Features
- Operator “Easy Screen” allows simple standard operation.
- Teaching is a Breeze
  - New Motion Chart Screen combines position, speed, and timer settings into one intuitive 3D interface.
- Improved Safety
  - Operator may easily set additional motion prohibit zones.
- Troubleshooting Mode enables users to personally track down problems.
- Auto Slow-down Mode decreases motion speed just before part placement to ensure a vibration-free release.

Lowers Electricity Cost for Air Compressors
<p>|</p>
<table>
<thead>
<tr>
<th>Test Conditions</th>
<th>195 NI/minute</th>
<th>4.75 NI/cycle</th>
<th>60 cycles (without ECO Vacuum)</th>
<th>75 NI/cycle (with ECO Vacuum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO Reduction</td>
<td>10%</td>
<td>23%</td>
<td>50%</td>
<td>75%</td>
</tr>
</tbody>
</table>

*As compared to previous model under controlled conditions.

*International IP (Ingress Protection) Rating
- 0 Solids Rating: 4 (protection from tools, small wires, etc. with a diameter or thickness greater than 1.0 mm)
- Moisture Rating: 4 (all-around protection from splashed water)

<Test Conditions>
- Air Usage
  - 195 NI/minute
- Test Interval
  - 24 hours

Air Compressor Output
- 75% Air Usage Reduction due to ECO Vacuum

Take-Out Robot Simulator Screen
Motion Chart Screen
**RCII - 600/800/1300**

**Clamping Force of Compatible Molding Machines**

400 – 1600 tons

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**Options**

**A Full Lineup of Value-Adding Features**

---

**Specification and Dimensions (mm)**

<table>
<thead>
<tr>
<th>Power Source</th>
<th>Max. Power Consumption</th>
<th>Drive Method</th>
<th>Control Method</th>
<th>Air Pressure</th>
<th>Max. Air Pressure</th>
<th>Wrist Flip Angle</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC200V 50/60Hz</td>
<td>3 Phase AC200V 7.6A</td>
<td>Digital Servo Motor</td>
<td>3/5 axes</td>
<td>0.49MPa</td>
<td>0.79MPa</td>
<td>90°</td>
</tr>
<tr>
<td>AC200V 50/60Hz</td>
<td>3 Phase AC200V 10.4A</td>
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<td>0.79MPa</td>
<td>90°</td>
</tr>
</tbody>
</table>

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**Option List**

**Explanation of each option**

- **Additional Analog Vacuum Circuit/ECO Vacuum**
  - Up to 3 additional ECO Vacuum-equipped analog vacuum circuits may be added to the single, standard-equipped circuit.

- **Additional Sprue Chuck Pressure Circuit**
  - 1 or 3 additional pressure circuits may be added to the single, standard-equipped circuit.

- **Sprue Chuck Circuit**
  - Allows nippers on-board the end-of-arm tool to cut sprues. May not be equipped together with the Sprue Cut Circuit.

- **Horizontal Rotation Unit**
  - Adding this unit to the wrist-flip mechanism allows the orientation of released products to be changed.

- **RC Servo Wrist Flip Mechanism**
  - Adds a servo-powered axis to the wrist flip, enabling positional control and robot compatibility with an unplanned wrist.

- **Sprue Cut Circuit**
  - After product take-out, product presence is verified at the ascent limit position by a remote-mounted limit switch.

- **Increased Maximum Payload**
  - Power along the vertical axis is increased, enabling the robot to handle heavier payloads.

- **Increased Wrist Flip Torque**
  - 1.4 times more wrist flip torque, for applications where the end-of-arm tool is heavy or attached off-center.

- **Signal Light / Signal Tower**
  - Colored lights indicate status of the robot.

- **External Beam-Mounted Nipper Unit**
  - Allows for instant attachment/detachment of end-of-arm tool and its pneumatic and wiring connections.

- **Take-out Failure Stop at Ascent Limit**
  - After extracting products, robot continuously verifies its hold on the products until it finally releases them.

- **Sprue Cut Circuit**
  - While in auto operation, if the robot fails to extract products it immediately error-stops at its ascent limit. Without this feature, the operator can only re-run the cycle after correcting the problem.

- **Low Air Pressure Detection**
  - The robot displays an error if air pressure drops below a set value.

- **Proactive Cycle Start**
  - The timing to output the Cycle Start signal to the molding machine is adjustable.

- **Centralized Handwheel Lubrication System**
  - Delivers lubricant from manual pump to necessary areas.

- **Centralized Remote Lubrication System**
  - Delivery of lubricant from remote pump to necessary areas.

- **Flexible Teach-in System**
  - User may select one of two languages to display on the controller: Japanese, English, Chinese, Korean, Spanish, Dutch, German, Portuguese, or Slovak.

- **Multilingual Display**
  - Up to 350 release positions may be designated per pallet.

- **3rd Party Program Installation**
  - Allows for third-party programs other than the robot control program to be installed and run on the E-touch II controller.

- **High-Cycle Traverse**
  - Traverse axes are adapted to provide higher-torque use by redesigning the internal motor.

---

**Controller**

Adjustable echo angle feature is optional.

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<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCII-600</td>
<td>660</td>
<td>300</td>
<td>200</td>
<td>190</td>
<td>170</td>
<td>75</td>
<td>50</td>
<td>25</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>RCII-800</td>
<td>860</td>
<td>300</td>
<td>200</td>
<td>190</td>
<td>170</td>
<td>75</td>
<td>50</td>
<td>25</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>RCII-1300</td>
<td>1300</td>
<td>300</td>
<td>200</td>
<td>190</td>
<td>170</td>
<td>75</td>
<td>50</td>
<td>25</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>RCII-1500</td>
<td>1500</td>
<td>300</td>
<td>200</td>
<td>190</td>
<td>170</td>
<td>75</td>
<td>50</td>
<td>25</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

### Options

#### A Full Lineup of Value-Adding Features

<table>
<thead>
<tr>
<th>Option List</th>
<th>Options</th>
<th>Explanation of each option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Air Pressure Circuit</td>
<td>Up to 3 additional ECO vacuum-equipped tap circuits may be added to the single, standard-equipped circuit.</td>
<td></td>
</tr>
<tr>
<td>Additional Part Clamping Pressure Circuit</td>
<td>1 or 3 additional pressure circuits may be added to the single, standard-equipped part circuit.</td>
<td></td>
</tr>
<tr>
<td>Additional Spray Check Circuit</td>
<td>Includes a spray check circuit, which allows spray paint to be added to the single, standard-equipped circuit.</td>
<td></td>
</tr>
<tr>
<td>Pitch Rocker Circuit</td>
<td>Allows repeatable positioning of the end-of-arm tool.</td>
<td></td>
</tr>
<tr>
<td>Sense Cut Circuit</td>
<td>Ensures accurate placement of the end-of-arm tool.</td>
<td></td>
</tr>
<tr>
<td>EIO Quick Change Unit</td>
<td>Reduces tool change time.</td>
<td></td>
</tr>
<tr>
<td>Photoreceptor</td>
<td>Enables precise, fast tool changes.</td>
<td></td>
</tr>
<tr>
<td>Chuck Soft Grip Mechanism</td>
<td>Adds a soft grip to the end-of-arm tool, reducing stress on the product and improving the workpiece.</td>
<td></td>
</tr>
<tr>
<td>Vertical Wrist Rotation Unit</td>
<td>Enables precise, fast tool changes.</td>
<td></td>
</tr>
<tr>
<td>Horizontal Wrist Rotation Unit</td>
<td>Enables precise, fast tool changes.</td>
<td></td>
</tr>
<tr>
<td>RC Servo Wrist Flip Mechanism</td>
<td>Allows precise, fast tool changes.</td>
<td></td>
</tr>
<tr>
<td>EIO Quick-Change Unit</td>
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<td></td>
</tr>
<tr>
<td>Signal Light / Signal Tower</td>
<td>Indicates status of the robot.</td>
<td></td>
</tr>
<tr>
<td>External Beam-Mounted Nipper Unit</td>
<td>Enables precise, fast tool changes.</td>
<td></td>
</tr>
<tr>
<td>Clamping Force of Compatible Products</td>
<td>Increases the maximum clamping force.</td>
<td></td>
</tr>
<tr>
<td>Additional Sprue Chuck Circuit</td>
<td>Provides additional chucking capacity.</td>
<td></td>
</tr>
</tbody>
</table>

### Notes

* Equipped with Increased Payload option

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*Each picture is on the next page.*
Options | A Full Lineup of Value-Adding Features

NC Servo Wrist | Flips and Rotates End-of-Arm Tools

- Servo-powered axes means the EOAT may be flipped or rotated to precise user-set angles.
- Equipped with this wrist unit, a take-out robot can have as many as 7 total numerically-controlled axes, giving it a range of motion comparable to an articulated robot.
- Motions for undercut molds and fixed platen take-out may be programmed quickly just by teaching.

EOAT Quick-Change Unit

- Greatly reduces set-up times by allowing instant attachment/detachment of end-of-arm tool and its pneumatic and wiring connections.
- Connect pneumatics and control wiring at the touch of a button!
- Eliminates need for hand tools.
- Check valve (on robot arm side) guards against air leaks.

The contents in this catalog are subject to change without notice.

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- Yushin Precision Equipment (Taiwan) Co., Ltd.
- Yushin Precision Equipment (Thailand) Co., Ltd.
- Yushin Precision Equipment Trading (Shanghai) Co., Ltd.
- Yushin Precision Equipment Trading (Shenzhen) Co., Ltd.
- Yushin Precision Equipment Trading (Taiwan) Co., Ltd.
- Yushin Precision Equipment Trading (Slovakia) s.r.o.
- Guangzhou Yushin Precision Equipment Co., Ltd.

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