<table>
<thead>
<tr>
<th>Option</th>
<th>Explanation</th>
<th>Target Models</th>
</tr>
</thead>
<tbody>
<tr>
<td>X Specification</td>
<td>When molded products are released onto a conveyor or a chain, the chuck unit rotates 90 degrees to release the products without damaging them. A Hopch chuck rotates 180 degrees.</td>
<td>HOP Five/V-HOP/N-HOP-G</td>
</tr>
<tr>
<td>X Specification</td>
<td>With vacuum suction, the mold can take out molded products that cannot be gripped with chuck or that are molded with multi-vacuum molding. When the products are released, an embossing tool rotates 90 degrees. (The vacuum suction circuit is included.)</td>
<td>HOP Five/V-HOP/N-HOP-G (500, 550, 650 only)</td>
</tr>
<tr>
<td>X Specification</td>
<td>Spins a side gate or direct gate mold can be cut by a nipper chuck. In releasing the products, 90 degree and flip-up is also applicable.</td>
<td>V-HOP</td>
</tr>
<tr>
<td>X Specification</td>
<td>The vacuum release position is set and held by adjusting horizontal flip angle from 60 to 90 degree.</td>
<td>P Models: 1 Standard function for THWP-G/N-HOP-G</td>
</tr>
<tr>
<td>Conveyor &amp; Sidewalk</td>
<td>By attaching the optional metal connector, it interacts with a belt conveyer and becomes capable of stacking molded products by shot.</td>
<td>P Models: 1 Standard function for THWP-G/N-HOP-G</td>
</tr>
<tr>
<td>Reject circuit</td>
<td>When a molding machine gives reject signal, the defective product is released at a different position from the front.</td>
<td>P Models: Not applicable for plastic cover</td>
</tr>
<tr>
<td>Special color</td>
<td>The main body, frame, conveyer, control box, and operation box can be painted with the color specified by the customers.</td>
<td>A Models: 2 Standard function for THWP-G/N-HOP-G</td>
</tr>
<tr>
<td>Escorl Traplock</td>
<td>The snap goes forward after the robot moves to the take-out position. The timing of escape motion and robot take-out motion are to be synchronized.</td>
<td>P Models: Not applicable for plastic cover</td>
</tr>
<tr>
<td>Air blow of tube</td>
<td>When a robot is grasped and the air is supplied, fragments of the molded products that are adhering to the mold are blown away by air.</td>
<td>P Models: 1 Standard function for THWP-G/N-HOP-G</td>
</tr>
<tr>
<td>Nipper half flip down</td>
<td>A pressure reducing valve is added to the product chuck circuit in order to secure the products when extracting them from the mold.</td>
<td>P Models: 1 Standard function for THWP-G/N-HOP-G</td>
</tr>
<tr>
<td>Vacuum blue of tube</td>
<td>When it is 60° to 90°, release products that stick to the vacuum suction pads, the robot can release the products by replacing the vacuum with pressurized air.</td>
<td>P Models: 1 Standard function for THWP-G/N-HOP-G</td>
</tr>
<tr>
<td>Swing limit switch</td>
<td>When the robot arm cannot stay on the normal waiting position while mold is closed, it can stay all day.</td>
<td>THWP-G/N-HOP-G</td>
</tr>
<tr>
<td>Safety door signal</td>
<td>This signal is input to the robot when the safety door of a molding machine is closed. Robot does not start up without this signal under auto operation.</td>
<td>THWP-G/N-HOP-G</td>
</tr>
<tr>
<td>Auto injection signal</td>
<td>Take-out robot does not start up the operator without auto injection signal of a molding machine. With this function, the take-out robot starts its operation only when molding is done.</td>
<td>P Models: Not applicable for plastic cover</td>
</tr>
<tr>
<td>Multilingual display</td>
<td>Displayed language on the controller can be changed by selecting from multilingual choices.</td>
<td>All Models: 1/5 P Models: 1/5 S Standard function for V-HOP</td>
</tr>
</tbody>
</table>

### Lead Through Yushin

Operators can easily add and change output and input signals, and tamer with this software by themselves.

### Three (3) parallel safety checks as standard

- Value operation is possible only while the operator is holding this switch in the center position.
- High speed operation is possible.
- It reduces the overall height by changing the direction of a point of the vertical guide sides.

### Specification for low setting position

- This is a mount on which a take-out robot is fixed when there is no operator for the take-out robot for the THWP-G/N-HOP-G machine.
- This is a mount to be set on the molding machine's bed on which a take-out robot is fixed when the take-out robot cannot be installed on it directly.
- This is a mount to be set on the molding machine's bed on which a take-out robot is fixed when the take-out robot cannot be installed on it directly.
- This is a mount to be set on the molding machine's bed on which a take-out robot is fixed when the take-out robot cannot be installed on it directly.

### Specifications on the side are subject to change without notice to improve the product
3 axis pneumatic high-speed sprue pickers for horizontal molding machines from 30-350 tons

**HOP Five 450~1000**

The "HOP Five" is the product of many years of research, development and experience with swing-type take-out robots.

It offers a space saving design with integration of robot body and control mechanism including transformer and control circuit board. Furthermore, it also offers efficient operation as its design enables operators to do all of the main adjusting operations at the operator side of molding machines.

It is equipped with new type handled controller, "GII-type controller" offering excellent operability with vastly improved functions over the "G-type controller".

As for appearance, it adopts a housing cover painted Yushin corporate blue, color-coded piping and user-friendly shape composed of curved surfaces and lines.

**Equipped with ample functions in its compact body.**

The robust construction supports the stable high-speed take-out operation.

**Yushin linear rail**

**GII-type controller**

**HOP Five 550X**

- **Power source**: AC200V 0.25A (50/60Hz)
- **Control method**: Micro-computer
- **Air Pressure**: 0.4~0.5MPa
- **Max. Air Pressure**: 0.8MPa

<table>
<thead>
<tr>
<th>Stroke</th>
<th>Vertical mm</th>
<th>450</th>
<th>550</th>
<th>650</th>
<th>750</th>
<th>850</th>
<th>950</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max</td>
<td>Min. 60°</td>
<td>Max. 90°</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chuck diameter (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waiting position adjustable 114</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Air flow rate (l/min):</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Max. jaw (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Max. weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
</tr>
</tbody>
</table>

*Max. payload includes the weight of chuck and/or EOAT. X, XD, and XN-Types are also available.*
3 axis pneumatic sprue and product pickers for horizontal molding machines from 30-100 tons

**TWINHOP-G 450~750**

In addition to being a sprue picker, the TWINHOP-G has both a main arm and a sub arm and supports 3 plate molds. The TWINHOP-G is provided standard with an adjustable 4 cup end-arm tool, wrist flipping, vacuum circuit, and is capable of taking out products using suction.

**Power source**
AC200V 0.25A (50/60Hz)

**Control method**
Sequence control program

**Air Pressure**
0.4~0.5MPa

**Max. Air Pressure**
0.8MPa

**Model**

<table>
<thead>
<tr>
<th>TWINHOP-G 450</th>
<th>TWINHOP-G 550</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke</td>
<td>450</td>
</tr>
<tr>
<td>Vertical (mm)</td>
<td>550</td>
</tr>
<tr>
<td>Wip (kg)</td>
<td>90</td>
</tr>
<tr>
<td>Swing</td>
<td>Min 50° ~ Max 90°</td>
</tr>
</tbody>
</table>

**Chuck (mm)**
Waiting position adjustable 65

**Air consumption**
(1 normal/µm³)
- 16
- 18

**Max. Payload (kg)**
- 47
- 48

*Max. payload includes the weight of chuck and/or EOAT.

---

2 axis pneumatic sprue pickers for vertical molding machines from 20-150 tons

**V-HOP 350~750**

The Vertical HOP is a sprue picker robot made specifically for vertical molding machines. In addition to upper mold ejection, the robot can be set to accommodate bottom mold ejection by simply controlling the controller and mechanical settings.

**Chuck capable of a 180-degree flip motion to ensure runners can fall freely (X Specification)**

**Yushin linear rail**

**G-type controller**

**Power source**
AC200V 0.25A (50/60Hz)

**Control method**
Sequence stored program

**Air Pressure**
0.4~0.5MPa

**Max. Air Pressure**
0.8MPa

**Stroke**
- Vertical: 360
- Horizontal: 360

**Kick (mm)**
- 90

**Swing**
Min 60° ~ Max 90°

**Chuck (mm)**
Waiting position adjustable 80

**Air consumption**
(1 normal/µm³)
- 12
- 14
- 16
- 18
- 20

**Max. Payload (kg)**
- 1.5

**Robot Weight (kg)**
37 38 39 42 43

*Max. payload includes the weight of chuck and/or EOAT. X- and Y-Type are also available.

---

3 axis pneumatic sprue pickers for horizontal molding machines under 30 tons

**miniHOP-G 300**

The miniHOP-G300 was developed to support miniature molding machines made by various injection molding machine manufacturers. Although it is small, the use of Yushin linear rails provides high-speed stability and virtually maintenance free qualities.

**Power source**
AC200V 0.25A (50/60Hz)

**Control method**
Sequence stored program

**Air Pressure**
0.4~0.5MPa

**Max. Air Pressure**
0.8MPa

**Model**
miniHOP-G 300

**Stroke**
- Vertical: 300
- Horizontal: 300

**Kick (mm)**
- 90

**Swing**
0°~360°

**Chuck (mm)**
Waiting position adjustable 65

**Air consumption**
(1 normal/µm³)
- 4

**Max. Payload (kg)**
- 1.5

**Robot Weight (kg)**
28 29 30 32 33

*Max. payload includes the weight of chuck and/or EOAT. X- and Y-Type are also available.