FlexGripper Family
Grippers for palletizing – Clamp, Claw, Vacuum
Complete range of 3 palletizing grippers
Optimized for ABB Palletizing Robots

Claw for IRB 460/IRB 660
Vacuum for IRB 460/IRB 660
Clamp for IRB 460/IRB 660
# Scope of supply

The FlexGripper is ready to plug-and-play on your chosen robot model

<table>
<thead>
<tr>
<th>Items</th>
<th>Installation &amp; commissioning</th>
<th>Programming</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>- FlexGripper</td>
<td>- 3 types of gripper open</td>
<td>- Simple configuration of Inputs/Outputs</td>
<td>- Monitoring of all signal and production</td>
</tr>
<tr>
<td></td>
<td>close test</td>
<td>- One click for gripper pick &amp; place test</td>
<td>parameters</td>
</tr>
<tr>
<td>- Dress Pack</td>
<td>- Graphical user interface</td>
<td>- RAPID module with gripper functions</td>
<td></td>
</tr>
<tr>
<td>- Graphical User Interface</td>
<td>- Graphical user interface to tune robot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Product and user manual</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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FlexGripper Claw
Gripper for palletizing
Product Management, ABB Robotics
FlexGripper Claw

Key Benefits

- For heavy duty bag palletizing up to 50 kg
- Varying bag shapes and contents
- Suitable for use in a wide range of industries
- Surface treatment for protection in extreme environments
- Product contacting parts made by stainless steel
FlexGripper Claw

Key Features

- Top press plate with 200 mm stroke for securing bag in position
- Pneumatically actuated side guide to centralize and secure position of bag
- Stroke of side guide is 100mm
- Stainless steel fingers replaceable
2 Configurations
Option: Side guide

Without Side Guide (Basic)  With Side Guide (add-on option)
## FlexGripper Claw

Key specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Without Side Guide (Basic)</th>
<th>With Side Guide (Add-on option)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handled product</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Max. weight/lift</td>
<td>50 kg</td>
<td></td>
</tr>
<tr>
<td>Gripper weight</td>
<td>70 kg</td>
<td></td>
</tr>
<tr>
<td>Finger interval</td>
<td>75 mm</td>
<td></td>
</tr>
<tr>
<td>Bag height range</td>
<td>120 – 240 mm</td>
<td></td>
</tr>
<tr>
<td>Bag length range</td>
<td>300 – 750 mm</td>
<td></td>
</tr>
<tr>
<td>Bag width range</td>
<td>250 – 550 mm</td>
<td>250 – 450 mm</td>
</tr>
<tr>
<td>Cable rotation range</td>
<td>+-180 °</td>
<td></td>
</tr>
<tr>
<td>Air pressure (bar)</td>
<td>5-6 bar</td>
<td></td>
</tr>
</tbody>
</table>
FlexGripper Vacuum
Gripper for palletizing
Product Management, ABB Robotics
### FlexGripper Vacuum

Versatile gripper

<table>
<thead>
<tr>
<th>Case</th>
<th>Slip sheet</th>
<th>Pallet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picking of 1-10 cases</td>
<td>Detection and picking of slip sheet</td>
<td>Detection and picking of pallet</td>
</tr>
<tr>
<td>– 10 individual standalone suction cup zones for better box picking control</td>
<td>– Search sensor</td>
<td>– Search sensor</td>
</tr>
<tr>
<td>– Easy adjustable vacuum rails for different box sizes</td>
<td>– Slip sheet module as an option for user preference.</td>
<td>– Pallet gripper and Search cylinder as an option for user preference.</td>
</tr>
</tbody>
</table>

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FlexGripper Vacuum
Versatile gripper

Case

Key Features: product size

<table>
<thead>
<tr>
<th>Adjustable vacuum rails</th>
</tr>
</thead>
</table>

Picking of 1-10 cases

- 10 individual standalone suction cup zones for ease of box picking control
- Easy adjustable vacuum rails for different box sizes

- The width can be adjusted from 150 to 360 mm measured from the centre of the both rails
- Max. product size (LxWxH) 1200 x 500 x 300 mm
- Min. product size (LxWxH) 240 x 120 x 10 mm
FlexGripper Vacuum
Versatile gripper

Case

Key Features: number of products

Picking of 1-10 cases
- 10 individual standalone suction cup zones for ease of box picking control
- Easy adjustable vacuum rails for different box sizes

- 10 separate, programmable zones
- Leakage in one zone will have no influence on other zones
- Effective on porous and uneven cardboard material
# FlexGripper Vacuum

## Versatile gripper

### Case

![Gripper Image]

- Picking of 1-10 cases
  - 10 individual standalone suction cup zones for ease of box picking control
  - Easy adjustable vacuum rails for different box sizes

### Key Features: product weight

- Handling Capacity
  - 40kg
  - 5*8kg, or 4*10kg
  - Run with full speed

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**Slim, simple, and light gripper design and weight for large payload capability**
**FlexGripper Vacuum**

Versatile gripper

### Pallet

Detection and picking of pallet
- Search sensor unit
- Pallet gripper and search cylinder as an option for user preference

### Key Features: types of pallet

Handling pallets
- GMA pallet 1016 x 1219.2 x 139.7 mm (L*W*H)
- EUR pallet 1200 x 800 x 144 mm (L*W*H)
- AUS pallet 1165 x 1165 x 150 mm (L*W*H)
- ISO pallet 1200 x 1000 x 144 mm (L*W*H)

Search sensor / search cylinder unit
- To locate the top of pallet stack
FlexGripper Vacuum
Versatile gripper

**Other Features**

- Less wiring and tubing link across robot and gripper for quick installation time
- Visible component windows for easy troubleshooting.
4 Configurations
With basic component: with search sensor, without search cylinder (option)

- **Case only (Basic)**
- **Case and Slip sheet**
- **Case and Pallet**
- **Case, Slip sheet, Pallet**
2 Configurations
With add-on option: with search cylinder

Case and Pallet

Case, Pallet, and Slip sheet
# FlexGripper Vacuum

## Key specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handled product</td>
<td>1-10</td>
</tr>
<tr>
<td>Max. weight/lift</td>
<td>40 kg</td>
</tr>
<tr>
<td>Gripper weight</td>
<td>70 kg</td>
</tr>
<tr>
<td>Case height range</td>
<td>10 – 300 mm</td>
</tr>
<tr>
<td>Case length range</td>
<td>240 – 1200 mm</td>
</tr>
<tr>
<td>Case width range</td>
<td>120 – 500 mm</td>
</tr>
<tr>
<td>Cable rotation range</td>
<td>±180 °</td>
</tr>
<tr>
<td>Air pressure (bar)</td>
<td>5-6 bar</td>
</tr>
</tbody>
</table>
**FlexGripper Vacuum**

Key specifications of products handled with add-on gripper option

<table>
<thead>
<tr>
<th>Specification</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handled pallet types</td>
<td>GMA/AUS/EUR/ISO</td>
</tr>
<tr>
<td>Slip Sheet Size</td>
<td>1000 mm x 1200 mm</td>
</tr>
</tbody>
</table>
FlexGripper Clamp
Gripper for palletizing
Product Management, ABB Robotics
FlexGripper Clamp
Versatile gripper

**Case**
- Picking of cases
  - Wide clamping stroke adapts to different case width
  - Rubber pad to increase friction force
  - Hook unit for high speed movements

**Slip sheet**
- Detection and picking of slip sheet
  - Search sensor
  - Slip sheet module as an option for user preference.

**Pallet**
- Detection and picking of pallet
  - Search sensor
  - Pallet gripper as an option for user preference
FlexGripper Clamp
Versatile gripper

Case

Picking of cases
- Wide clamping stroke adapts to different case width
- Rubber pad to increase friction force
- Hook unit for high speed movements

Key Features: product size

Adjustable stationary plate and pneumatic cylinder

- The width can be adjusted from 200 to 650 mm
- Max. product size (LxWxH) 650x 500 x 300 mm
- Min. product size (LxWxH) 200x 200 x 150 mm
FlexGripper Clamp
Versatile gripper

Key Features: types of pallet

Handling pallets
- GMA pallet 1016 x 1219.2 x 139.7 mm (L*W*H)
- EUR pallet 1200 x 800 x 144 mm (L*W*H)
- AUS pallet 1165 x 1165 x 150 mm (L*W*H)
- ISO pallet 1200 x 1000 x 144 mm (L*W*H)

Detection and picking of pallet
- Search sensor unit
- Pallet gripper as an option for user preference
FlexGripper Clamp

Versatile gripper

Other Features

- Less wiring and tubing link across robot and gripper for quick installation time
4 Configurations

- **Case only (Basic)**
- **Case and Slip sheet**
- **Case and Pallet**
- **Case, Slip sheet, Pallet**
# FlaxGripper Clamp

## Key specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>IRB460</th>
<th>IRB660</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handled product</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Max. weight/lift</td>
<td>30 kg</td>
<td>70 kg</td>
</tr>
<tr>
<td>Gripper weight</td>
<td>80 kg</td>
<td></td>
</tr>
<tr>
<td>Case height range</td>
<td>150 – 330 mm</td>
<td></td>
</tr>
<tr>
<td>Case length range</td>
<td>200 – 650 mm</td>
<td></td>
</tr>
<tr>
<td>Case width range</td>
<td>200 – 500 mm</td>
<td></td>
</tr>
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<td>±-180 °</td>
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<td>Air pressure (bar)</td>
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</tbody>
</table>
# FlexGripper Clamp

Key specifications of products handled with add-on gripper option

<table>
<thead>
<tr>
<th>Specification</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handled pallet types</td>
<td>GMA/AUS/EUR/ISO</td>
</tr>
<tr>
<td>Slip dimension</td>
<td>1000 mm x 1200 mm</td>
</tr>
</tbody>
</table>