Main Applications
Assembly
Material handling
Picking
Packing

Features
- High speed flexibility
- High capacity – up to 8 kg payload
- Hygienic design for washdown applications
- Superior tracking performance
- Integrated vision software
- Integrated control of indexing belts

ABB’s IRB 360 family of robots, more commonly known as the FlexPicker, can handle payloads of between 1 kg and 8 kg. Each of the family’s variants is capable of the fastest picking applications and have been optimized for packing applications. The robot has outstanding motion performance with the shortest cycle times, precision accuracy and high payloads.

Whether operating at high speeds, in narrow or large spaces (maximum 1,600 mm), the IRB 360’s stainless steel design allows for easy clean up and sterilization.

A stainless option for food handling applications is IP69K validated so that it can be washed down with industrial detergents and high pressure hot water. This variant is also designed with smooth and easy to rinse-off surfaces and lubricant free joints that are resistant to most corrosives.

Setting up an application becomes easy using PickMaster™ software which has evolved into an invaluable help for integrators and users of IRB 360. It simplifies vision configuration and offers the application tools needed for efficient high speed picking.

The reliable, market leading IRC 5 controller is also an integral part of the FlexPicker robot family. The IRC 5 with TrueMove™ and QuickMove™ guarantees high speeds and path following facilities which allows these robots to track fast moving conveyor belts with extreme accuracy. The IRC 5 also is available in a panel-mounted version that offers substantial space savings and easy integration into machines and production lines.
IRB 360

**Specification**

<table>
<thead>
<tr>
<th>Robot versions</th>
<th>Handling capacity</th>
<th>Diameter</th>
<th>No. Axes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRB 360-1/800</td>
<td>1 kg</td>
<td>800 mm</td>
<td>4</td>
</tr>
<tr>
<td>IRB 360-1/1130 *</td>
<td>1 kg</td>
<td>1130 mm</td>
<td>3/4</td>
</tr>
<tr>
<td>IRB 360-3/1130</td>
<td>3 kg</td>
<td>1130 mm</td>
<td>3/4</td>
</tr>
<tr>
<td>IRB 360-1/1600</td>
<td>1 kg</td>
<td>1600 mm</td>
<td>4</td>
</tr>
<tr>
<td>IRB 360-6/1600</td>
<td>6 kg</td>
<td>1600 mm</td>
<td>4</td>
</tr>
<tr>
<td>IRB 360-8/1130</td>
<td>8 kg</td>
<td>1130 mm</td>
<td>4</td>
</tr>
</tbody>
</table>

Supplementary load
- on upper arm: 350 gram
- on lower arm: 350 gram

Integrated signal supply: 12 poles 50V, 250mA
Integrated vacuum supply: Max. 7 bar/max vacuum 0.75 bar
* Tested by IPA, all axes

**Physical**

Robot mounting: Inverted

Weight
- 120 kg (Standard & Wash-down)
- 145 kg (Stainless Wash-down)

**Performance**

- Position repeatability: 0.1 mm
- Angular repeatability:
  - Standard & stainless axis 4: 0.4°
  - Wash-down axis 4: 1.5°

**Cycle time**

<table>
<thead>
<tr>
<th>Payload (kg)</th>
<th>0.1</th>
<th>1</th>
<th>3</th>
<th>6</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>25/305/25 (mm)</td>
<td>0.30</td>
<td>0.36</td>
<td>0.40</td>
<td>0.40</td>
<td>0.40</td>
</tr>
<tr>
<td>90/400/90 (mm)</td>
<td>0.44</td>
<td>0.51</td>
<td>0.60</td>
<td>0.60</td>
<td>0.60</td>
</tr>
</tbody>
</table>

* Cycle times for IRB 360-1/800 differ in cycle time. Please use RobotStudio or real cycle time tests to verify actual cycle time.

**Conveyor tracking**

- Constant conveyor speed
  - Speed [mm/s]: 200, 350-750, 800-1400
  - Repeatability [mm]: 1.0, 1.5, 5.0
- Start/stop conveyor speed
  - Speed [mm/s]: 500 (start/stop in 0.2 sec)
  - Repeatability [mm]: 3.5
- Indexing conveyor control
  - 3.5 g acceleration/deceleration

**Electrical Connections**

- Supply voltage: 200-600 V, 60 Hz
- Rated power: 7.2 kVA
- Transformer rating: 7.2 kVA
- Power consumption at max load: 0.477 kW
- Type of Movement: IRB 360/1
- Typical pick - and - place cycle with 1 kg payload

**Environment**

- Ambient temperature: ±0°C to +45°C
- Relative humidity: Max. 95%
- Noise level: < 70 dB(A)
- Safety: Double circuits with supervision, emergency stops and safety functions, 3-position enabling device
- Emission: EMC/EMI shielded
- Clean Room options axis 4
  - Standard - Clean room 7
  - Wash-down- Clean room 5 (certified by IPA)
  - Stainless - Clean Room class 5 (certified by IPA)

**Working range and physical dimensions**

Note 1: IRB 360-1/1130 and IRB 360-3/1130
Note 2: IRB 360-1/800
Note 3: IRB 360-1/1600
Note 4: IRB 360-8/1130
Note 5: IRB 360-6/1600