The IRB 52 is a compact painting robot designed specifically for painting small and medium sized parts in a wide range of industries. It provides you with an affordable, professional and high-quality painting solution.

**Compact**
The compact design of the IRB 52 means smaller spray-booth sizes, reduced ventilation needs and system energy savings.

**Flexible**
With its small size and impressive reach (1.2 or 1.45 meters) the IRB 52 is flexible and versatile, while its high speed and accuracy offer short cycle times and high quality painting.

Versatile mounting options allow the IRB 52 to meet your demands for flexible integration and increased production.

The IRB 52 can be easily integrated with a range of process accessories, such as turntables, shuttle tables and conveyor systems. The robot is light weight and very easy to install, program and maintain.

**Integrated**
The IRB 52 is designed for painting and is fully prepared for integrated paint process equipment. It utilizes the powerful and well proven Integrated Process System (IPS) for high speed process control synchronized with the superior IRC5P motion system.

The IPS system includes color change valves and air-and paint regulation, providing accurate process regulation, offering high quality finish and major paint savings.

The combination of proven technology and well-tested innovations offers reliable production and high uptime. The IRB 52 can significantly improve your productivity.

**Designed for painting**
The IRC5P is the newest generation paint robot control system specifically designed for the paint shop. Key elements of its user friendly interface are the Exi certified FlexPaint pendant with multi-language support, and the customizable PC software for paint cell supervision, RobView 5.
### Specification

<table>
<thead>
<tr>
<th>Robot version</th>
<th>Payload on wrist (kg)</th>
<th>Reach vertical arm (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRB 52/1.2</td>
<td>7</td>
<td>0.475</td>
</tr>
<tr>
<td>IRB 52/1.45</td>
<td>7</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Number of axes: 6
Protection: IP66 (wrist IP54)
Mounting: Floor, inverted, wall, tilted
Controller: IRC5P Paint
Ex-certification: Explosion protected Exi/Exp for installation in hazardous area, Zone 1 (Europe) and Division I, Class I & II

### Performance (according to ISO 9283)

<table>
<thead>
<tr>
<th>Robot version</th>
<th>Static repeatability (mm)</th>
<th>Path accuracy (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRB 52/1.2</td>
<td>0.15</td>
<td>+/- 2</td>
</tr>
<tr>
<td>IRB 52/1.45</td>
<td>0.15</td>
<td>+/- 2</td>
</tr>
</tbody>
</table>

### Technical Information

#### Electrical Connections

Supply voltage: 200–600 VAC, 3-phase, 50–60 Hz
Power consumption: Standby <300 W, Production <800 W
Electrical safety: According to international standards

#### Physical

Robot footprint: 484 x 648 mm
Robot controller: 1450 x 725 x 710 mm
Robot unit weight: 250 kg
Robot controller weight: 180 kg
Height IRB 52/1.2: 1069 mm
Height IRB 52/1.45: 1294 mm

#### Environment

Ambient temperature:
- Robot unit: +5 °C (41 °F) to +40 °C (104 °F)
- Robot controller: +20 °C (68 °F) max.
Relative humidity:
- Max. 95 %, non-condensing

Interface IRC5P Paint

Digital inputs/outputs: 512/512, expandable
Analog inputs/outputs: 16/12, expandable
Fieldbus support: Interbus-S, ProfiBus, CC Link, DeviceNet

Data and dimensions may be changed without notice.

#### Movement

<table>
<thead>
<tr>
<th>Axis movement</th>
<th>Working range, IRB 52/1.2</th>
<th>Working range, IRB 52/1.45</th>
<th>Axis max speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axis 1 rotation</td>
<td>+180° to -180°</td>
<td>+180° to -180°</td>
<td>180°/s</td>
</tr>
<tr>
<td>Axis 2 arm</td>
<td>+110° to -63°</td>
<td>+120° to -90°</td>
<td>180°/s</td>
</tr>
<tr>
<td>Axis 3 arm</td>
<td>+55° to -235°</td>
<td>+55° to -235°</td>
<td>180°/s</td>
</tr>
<tr>
<td>Axis 4 arm</td>
<td>+200° to -200°</td>
<td>+200° to -200°</td>
<td>320°/s</td>
</tr>
<tr>
<td>Axis 5 bend</td>
<td>+115° to -115°</td>
<td>+115° to -115°</td>
<td>400°/s</td>
</tr>
<tr>
<td>Axis 6 rotation</td>
<td>+400° to -400°</td>
<td>+400° to -400°</td>
<td>460°/s</td>
</tr>
</tbody>
</table>

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