MAIN APPLICATIONS
Cutting and deburring
Die spraying
Glueing and sealing
Grinding and polishing
Machine tending
Material handling
Packing
Palletizing

Fast, compact and versatile industrial robot
An extremely fast, compact robot for medium to heavy handling. Exceptional all-round capabilities make it suitable for a variety of manufacturing applications. The load capacity up to 60 kg at very high speeds usually permits handling of two parts at a time. A rigid, well-balanced design and patented TrueMove™ function provide smooth and fast movement throughout the entire working range. This ensures very high quality in applications such as cutting. Rapid maneuverability makes the IRB 4400 perfectly matched for applications where speed and flexibility are important. The compact design and protected versions enable use in situations where conventional robots cannot work, such as foundry and spraying applications. The foundry plus versions are IP 67 protected and can be washed with high pressure steam, which make the IRB 4400 ideal for use in harsh environments.

Reliability and economy
The robust, rigid construction means long intervals between routine maintenance. Well-balanced steel arms with double bearing joints, a torque-strut on axis 2 and use of maintenance-free gearboxes and cabling also contribute to the very high levels of reliability. The drive train is optimized to give high torque with the lowest power consumption for economic operation.

Extensive communication for easy integration
The extensive communication capabilities include serial links, network interfaces, PLC, remote I/O and field bus interfaces. This makes for easy integration in small manufacturing stations as well as large scale factory automation systems.
## TECHNICAL DATA, IRB 4400 INDUSTRIAL ROBOT

### SPECIFICATION

<table>
<thead>
<tr>
<th>Versions</th>
<th>Reach</th>
<th>Payload</th>
<th>Standard</th>
<th>Foundry</th>
<th>Wash</th>
<th>Clean</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRB 4400/45</td>
<td>1.96 m</td>
<td>45 kg</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>IRB 4400/60</td>
<td>1.96 m</td>
<td>60 kg</td>
<td>X</td>
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</tr>
<tr>
<td>IRB 4400/L10</td>
<td>2.55 m</td>
<td>10 kg</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tr>
<tr>
<td>IRB 4400/L30</td>
<td>2.43 m</td>
<td>30 kg</td>
<td>X</td>
<td>X</td>
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<tr>
<td>IRB 4400/S</td>
<td>2.74 m</td>
<td>30 kg</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

* at 30° mounting angle

Supplementary load
- on axis 2: 35 kg
- on axis 3: 15 kg
- on axis 4: 5 kg

Number of axes
- Robot manipulator: 6
- External devices: 6

Integrated signal supply: 23 signals and 10 power on upper arm

Integrated air supply: Max. 8 bar on upper arm

Memory/instructions
- Program memory: 2.5-6 Mb, 7,500-18,000 instructions
- Storage memory: 0.5 Mb, 3,000-35,000 instructions
- 3.5" diskette drive: 144 Mb, 15,000 instructions

### PERFORMANCE

- Positional repeatability: 0.07-0.1 mm
- Path repeatability at 1 m/s: 0.25-0.4 mm

Axis movements:
- IRB 4400, 4400F, and 4400F/L: Working range
- IRB 4400/S: Working range
- 1. C Rotation: 330°
- 2. B Arm: 165°
- 3. A Arm: 125°
- 4. D Wrist: 400°
- 5. E Bend: 240°
- 6. P Turn: 800°

### WORKING RANGE AND LOAD DIAGRAM

#### Movement on ISO test plane, all axis in motion
- Max. TCP velocity: 2.2 m/s
- Max. TCP acceleration: 12-14 m/s²

### ELECTRICAL CONNECTIONS

- Supply voltage: 200-600 V, 50/60 Hz
- Rated power, Transformer rating: 7.8 kVA

### PHYSICAL

- Robot mounting:
  - IRB 4400: Floor
  - IRB 4400/L: Floor
  - IRB 4400FS: Shelf
- Dimensions:
  - Robot base: 920 x 640 mm
  - Weight:
    - Robot: 980-1,300 kg

### ENVIRONMENT

- Ambient temperature:
  - Manipulator: 5 – 45°C (41 – 113°F)
- Relative humidity: Max. 95%
- Degree of protection:
  - Standard version: IP 54
  - Foundry Plus and Wash versions: IP 67 and high pressure steam washable
- Noise level: Max. 70 dB (A)
- Safety:
  - Double circuits with supervision, emergency stops and safety functions, 3-position enable device
- Emission: EMC/EMI-shielded

Data and dimensions may be changed without notice.