

IRB 6760

High-endurance press tending robots



The IRB 6760 robot comes with reinforcement on axis 1 and 6 with 25% longer lifetime at 7% better cycle time¹, specifically designed for press tending applications. With up to 15 strokes per minute this robot brings highest productivity and reliability to press tending production lines. With a superior payload capacity of up to 200 kg and reach up to 3.5 m it brings highest flexibility.

Key benefits

1. **Enhanced Durability:** Reinforced axis 1 and 6 for a 25% longer lifetime¹
2. **Improved Cycle Time:** Achieves up to 15 strokes per minute, enhancing productivity by 7%¹.
3. **High Payload Capacity:** Supports up to 200 kg, accommodating a wide range of tasks.
4. **Extended Reach:** Offers a reach of up to 3.5 meters, providing flexibility in various applications.

Performance

The IRB 6760 is designed to deliver exceptional performance in press tending production lines. Its ability to handle up to 15 strokes per minute ensures that it meets the demands of high-speed operations, making it an ideal choice for industries requiring rapid and reliable automation.

Unmatched lifetime

Powered by the OmniCore controller and with reinforced mechanics, the robot achieves class-leading reliability in high-duty applications and pushing TCO to a minimum.

Exceptional Flexibility for Diverse Applications

Engineered to adapt seamlessly to a broad spectrum of industrial tasks, the IRB 6760 stands out with its impressive range of configurations. Offering reach options of both 3.2 and 3.5 meters and supporting payload capacities of 150 kg and 200 kg, this robot is remarkably versatile. These specifications enable the IRB 6760 to handle everything from heavy-duty press tending to complex material handling, assembly, and packaging operations — making it a true cornerstone for dynamic production environments.

Efficient modular design

The IRB 6760 is based on the same groundbreaking modular design as the wider large robot family recently launched by ABB. Due to modularity, many components like gearboxes, motors, and electronics are shared with other modular large robots, decreasing total cost of ownership through shared spare parts and service tools.

All of the latest robots now have the same footprint, enabling faster, more convenient, and more flexible installations when changing robots in different production lines.

¹ IRB 6760-150/3.5 compared with its predecessor IRB 6660-100/3.3, running on IRC5.

Target industries: Automotive, general industries, consumer industries, electronics, etc.

Target applications

1. **Press Tending:** Optimized for handling press operations with precision and speed.
2. **Material Handling:** Suitable for tasks involving the movement of heavy materials.
3. **Assembly:** Efficient in assembling components with high accuracy.
4. **Packaging:** Ideal for packaging applications requiring consistent and reliable performance.

Specification

Robot version	Reach (m)	Handling capacity (kg)*	Center of gravity (mm)	Wrist torque (Nm)
IRB 6760-200/3.2	3.2	200	300	1324
IRB 6760-150/3.5	3.5	150	300	1324
Number of axes	6			
Protection	IP67			
Mounting	Floor			
Controller	OmniCore V250XT/V400XT			

* allow 20kg extra load on upper arm

Performance (according to ISO 9283)

Robot version	Position repeatability	Path repeatability
IRB 6760-200/3.2	0.06 mm	0.12 mm
IRB 6760-150/3.5	0.08 mm	0.10 mm

Technical information

Electrical connections

Supply voltage	380–480 VAC, 50/60 Hz
Energy consumption*	3.2 - 3.4 kW

* ISO-cube at max performance depending on robot version

Physical

Robot base	1019 x 720 mm
Robot weight	
IRB 6760-200/3.2	1460 kg
IRB 6760-150/3.5	1480 kg

Environment

Ambient temperature for mechanical unit	
During operation	+5°C (41°F) to +50°C (122°F)
During high speed press tending application	+5°C (41°F) to +35°C (95°F)
During transportation and storage	-25°C (13°F) to +55°C (131°F)
During short storage periods (max 24 hours)	up to +70°C (158°F)
Relative humidity	Max 95%

Noise level	74 dB (A) _{L_{eq}}
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Safety	Double circuits with supervision, emergency stops and safety functions, 3-position enable device
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Extended safety	SafeMove
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Emission	EMC/EMI-shielded
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Main options*	Fan axis 1, 2 and 3
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* only two fans selectable together

Movement – working range

Robot version	Axis 1*	Axis 2	Axis 3	Axis 4	Axis 5	Axis 6
IRB 6760-200/3.2	±170°	-65°/+85°	-180°/+70°	±300°	±130°	±360°
IRB 6760-150/3.5	±170°	-65°/+85°	-180°/+70°	±300°	±130°	±360°

* Option ±220°

Axis max. speed

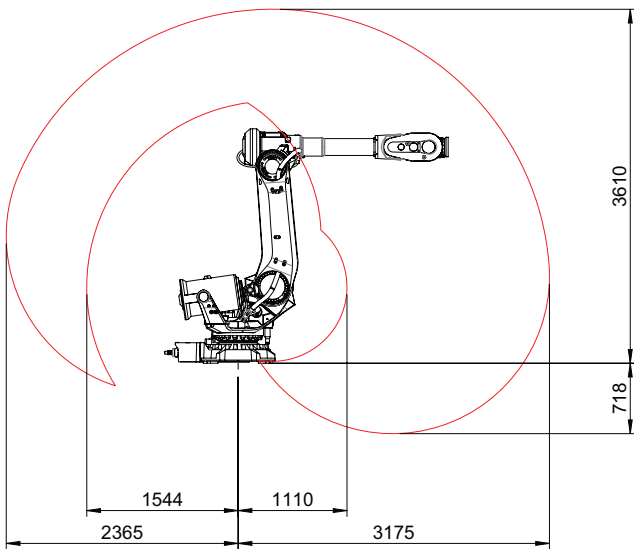
Robot version	Axis 1	Axis 2	Axis 3	Axis 4	Axis 5	Axis 6
IRB 6760-200/3.2	110°/s	100°/s	110°/s	170°/s	120°/s	285°/s
IRB 6760-150/3.5	110°/s	100°/s	110°/s	170°/s	120°/s	285°/s

More information about the data specification is found in the Product Specification IRB 6760
Data and dimensions may be changed without notice.

Maximizing robot lifetime

ABB provides customers with an advanced toolbox suite designed to maximize robot lifespan, minimizing downtime and enhancing productivity. Find out more: <https://to.abb/yCXdolvHI>

Working range IRB 6760 - 200/3.2



Working range IRB 6760 - 150/3.5

