

IRB 760

Industrial Robot



The 4-axis robot can move and rotate large and heavy products at high speeds, and with the utmost care. Its compact design makes it ideal for fitting into existing packing lines.

Shorter cycle times

The IRB 760 is the fastest robot of its kind and is capable of significantly shortening cycle times and raising productivity for full-layer palletizing. This four-axis robot has a reach of 3.2 meters and a 450 kilograms payload capacity, enabling it to lift heavy objects and full pallet layers. With its high torque wrist and long reach it can achieve 880 cycles per hour at full load (400 mm, 2000 mm, 400 mm cycle).

IRB 760PT is the variant of IRB 760 for press tending applications. IRB 760PT has changed morphology to reduce interference between the robot and press clamps.

High precision movements

Utilizing ABB's patented motion control software, QuickMove™ and TrueMove™, the IRB 760 ensures palletizing and press tending is carried out with smooth movements and high path accuracy. This means even the most sensitive products will be handled with great care without losing cycle time.

Low cost of ownership and increased productivity

The robot's robust and rigid design – manufactured to automotive industry standards – ensures high uptime and low maintenance costs. The IRB 760 also features integrated process cabling which helps extend life and reduces wear. We also offer RoboCare, a three-year warranty package that ensures worry-free operation of your robots at a fixed cost.

This package includes the patented ABB wireless Remote Services, which enables ABB experts to monitor robots and suggest optimized maintenance to further increase productivity.

Faster, easier programming

The user-friendly software, RobotStudio with Palletizing PowerPac – which runs on a regular PC – lets users who have no robot programming experience create programs and simulations, as well as design palletizing installations. The software is used to “configure” palletizing systems rather than program them and reduces programming time by up to 80 percent.

Complete palletizing solutions

By combining the IRB 760 and RobotStudio with Palletizing PowerPac you get the fastest robotic full-layer palletizing system in the world. With both elements working together, path accuracy is optimized to ensure that your products will not only be handled very quickly, but also with the utmost care. With an ABB robot solution, palletizing will never be a bottle neck - neither now nor in the future.

Main applications

- Full layer palletizing
- Palletizing
- Depalletizing
- Material handling
- Press tending

Specification

Robot version	Reach (m)	Handling capacity (kg)
IRB 760	3.18	450
IRB 760PT	3.18	455
Number of axes	4	
Protection	IP67	
Mounting	Floor mounted	
Controller	IRC5 Single cabinet, IRC5 Dual cabinet	
Integrated power signal supply	Optional	
Integrated air supply	Optional	

Performance (according to ISO 9283)

	Position repeatability RP (mm)	Path repeatability RT (mm)
IRB 760	0.05	0.80

Cycles per hour

	Load (kg)	Cycles per hour
IRB 760	60	450

Technical information

Electrical Connections

Supply voltage	200-600 V, 50-60 Hz
Power consumption	ISO cube 2.75 kW

Physical

Dimensions robot base	1140 x 800 mm
Robot weight	2310 kg

Environment

Ambient temperature for mechanical unit	
During operation	+ - 0°C (32°F) to + 50°C (122°F)
During transportation and storage	-25° C (-13° F) to +55° C (131° F)
For short periods (max 24 h) up to +70° C (158° F)	

Relative humidity	Max. 95%
Noise level	< 70 dB (A)
Safety	Double circuits with supervisions, emergency stops and safety functions. 3-position enable device

Emission	EMC/EMI shielded
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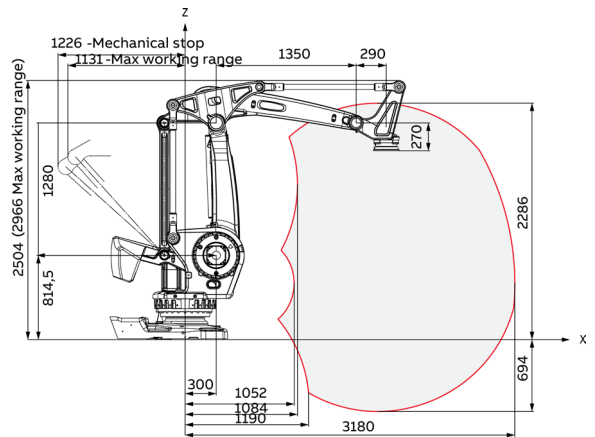
Data and dimensions may be changed without notice.

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Axis movement	Working range	Axis max speed
Axis 1	+180° to -180°	85°/s
Axis 2	+85° to -42°	85°/s
Axis 3	+120° to -20°	85°/s
Axis 4*	+300° to -300°	160°/s

* +67 rev. to -67 rev. max

IRB 760, working range



IRB 760PT, working range

