

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 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 and press tending. 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 press tending robot

Aimed at press automation applications in the automotive industry, the IRB 760PT is a flexible press tending robot offering 25 per cent faster cycle times compared to other robot-based press automation solutions. Its 3.18 meter reach, coupled with a linear seventh axis or with the Twin Xbar system avoids the need to reorient parts between consecutive stamping operations, helping users to optimize available space and save costs.

High precision movements

Utilizing ABB's patented motion control software, QuickMove™ and TrueMove™, the IRB 760 family 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 family also features integrated process cabling which helps extend life and reduces wear.

Offline programming is the best way to maximize return on investment for robot systems. ABB's simulation and offline programming software, RobotStudio, allows robot programming to be done on a PC in the office without shutting down production. RobotStudio provides the tools to increase the profitability of your robot system by letting you perform tasks such as training, programming, and optimization without disturbing production.

Powered by OmniCore

OmniCore controller offers best-in-class motion control, 20 percent energy savings, security, and scalable functions. Faster performance and enhanced flexibility enable improved productivity and ability to respond to changing market demands.

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	450
Number of axes	4	
Protection	IP67	
Mounting	Floor mounted	
Controller	IRC5 Single cabinet, IRC5 Dual cabinet, OmniCore V400XT	
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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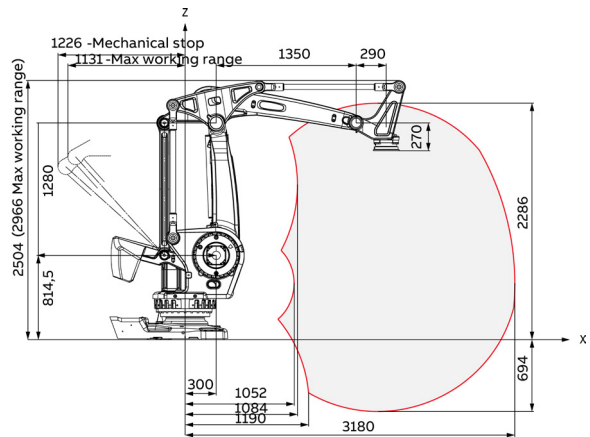
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IRB 760

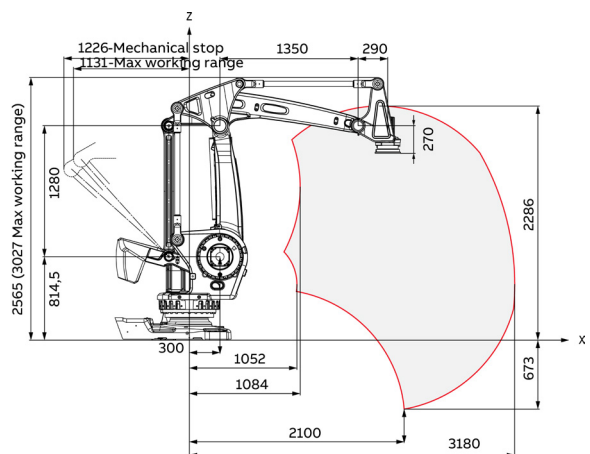
Axis movement	Working range	Axis max speed
Axis 1	+180° to -180°	85°/s
Axis 2	+85° to -42°	85°/s
Axis 3	+120° to -20°	85°/s
Axis 4*	+300° to -300°	160°/s

* +67 rev. to - 67 rev. max

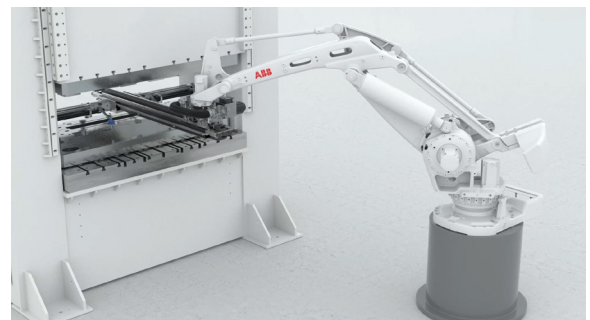
IRB 760, working range



IRB 760PT, working range



IRB 760PT, In press automation applications



The IRB 760FX is a combination of an IRB 760PT and a Linear 7th axis.