

IRB 460

High speed robotic palletizer



Leading ABB's palletizing offering is the compact IRB 460 - the fastest palletizing robot in the world. The IRB 460 is perfect for end-of-line palletizing and bag palletizing applications. The 4-axis robot is the fastest of its kind and its small footprint makes it ideal for fitting into existing packing lines.

Shorter cycle times

The IRB 460 is the world's fastest palletizing robot, capable of significantly shortening cycle times and raising productivity for end-of line and bag palletizing. With a reach of 2.4 m and 110 kg payload capacity, this compact, four-axis robot can achieve up to 2,190 cycles/hour with a 60 kg load. That's 15 % faster than its nearest rival.

High precision movements

Utilizing ABB's patented motion control software, QuickMove™ and TrueMove™, the IRB 460 ensures palletizing 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.

Higher output from a smaller footprint

The compact design of the IRB 460 allows pallets to be placed 20 % closer to the robot as compared with competitors' robots with similar speeds and payloads. This can increase productivity by up to 3 %.

Low cost of ownership and increased productivity

The robust and rigid design of the robot ensures high uptime and low maintenance costs and the integrated process cabling helps extend life and reduces wear. The three-year warranty package RoboCare ensures worry-free operation of robots at a fixed cost is offered. This includes ABB wireless Remote Services where ABB experts 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 and design palletizing installations. The software is used to "configure" palletizing systems rather than program them and reduces programming time by up to 80 %.

Unrivalled experience and global support

With more than 25 years of experience in the palletizing sector, ABB is a multinational corporation that has a sales and service organization in 53 countries and over 100 locations.

Complete palletizing solutions

By combining the IRB 460 high speed palletizer with the ABB FlexGripper Claw and RobotStudio with Palletizing PowerPac you get the fastest robotic bag palletizing system in the world. With all elements working together path accuracy is optimized to ensure that your products will not only be handled very fast, but also with the utmost care. With an ABB robot solution palletizing will never be a bottle neck; either now or in the future.

Main applications

- Palletizing
- Depalletizing
- Material handling

Specification

Robot version	Reach (m)	Handling capacity (kg)	Armload (kg)
IRB 460-110/2.4	2.4	110	
Number of axes			4
Protection			IP67
Mounting			Floor
Controller		IRC5 Single Cabinet, OmniCore V250XT	
Integrated signal supply			Optional
Integrated air supply			Optional

Performance (according to ISO 9283)

	Position repeatability	Path repeatability
IRB 460	0.2 mm	0.11 mm

Technical information

Electrical Connections

Supply voltage	200-600 V, 50-60 Hz
Power consumption	ISO cube 3.67 kW

Physical

Robot base	1007 x 720 mm
Robot weight	925 kg

Environment

Ambient temperature for mechanical unit	
During operation	0°C (32°F) to +45°C (113°F)
During transportation and storage	-25°C (-13°F) to +55°C (131°F)
During 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.

Movement

Axis movement	Working range	Axis max speed
Axis 1 rotation	+165° to -165°	145°/s
Axis 2 arm	+85° to -40°	110°/s
Axis 3 arm	+120° to -20°	120°/s
Axis 6 turn	+300° to -300°	400°/s

Working range

