IRB 460
Industrial Robot

The IRB 460 is a compact palletizing robot 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 meters and 110-kilogram payload capacity, this compact, four-axis robot can achieve up to 2,190 cycles per hour with a 60 kg load (400 mm, 2000 mm, 400 mm cycle). That's 15 percent faster than its nearest rival.

High precision movements

Utilizing ABB's patented motion control software, Quick-Move™ and TrueMove™, the IRB 460 ensures palletizing is carried out with smooth movements and high path accurary. This means even the most sensitive products will be handled with great care without loosing cycle time.

Higher output from a smaller footprint

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

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 460 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; and design palletizing installations. The software is used to "configure" palletizing systems rather than program them and reduces programming time by up to 80 percent.

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.

Power and productivity
for a better world™

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IRB 460

Main applications

Palletizing, depalletizing, material handling

Specification

Handling capacity	110 kg
Reach	2.40 m
Number of axes	4
Protection	IP67
Mounting	Floor
IRC5 controller variants	Single cabinet
Integrated power signal supply	Optional
Integrated air supply	Optional

Physical

Dimensions robot base	1007 x 720 mm
Robot weight	925 kg

Performance (according to ISO 9283)

Position repeatability (RP)	0.20 mm
Path repeatability (RT)	0.11 mm

Movement

Axis movements	Working range	Maximum speed
Axis 1	+165° to -165°	145°/s
Axis 2	+85° to - 40°	110°/s
Axis 3	+120° to - 20°	120°/s
Axis 4*	+300° to - 300°	400°/s

* +150 rev. to - 150 rev. max

Electrical connections

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

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)
For short periods (max 24h)	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 enabling device
Emission	EMC/EMI shielded

Data and dimensions may be changed without notice

Working range
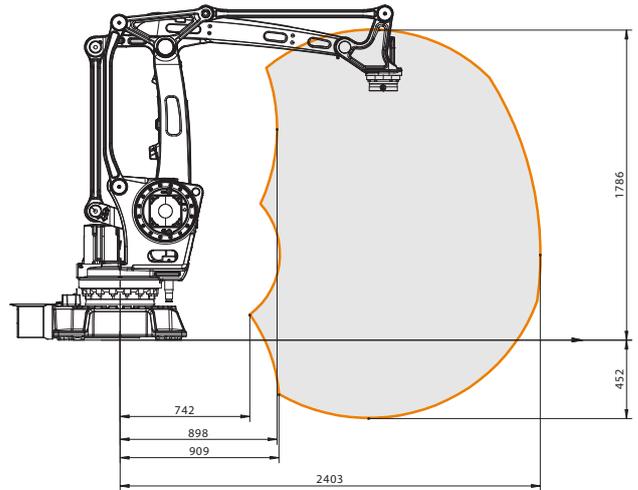
Cycles per hour

Load	Cycles per hour
60 kg	2190
110 kg	2040
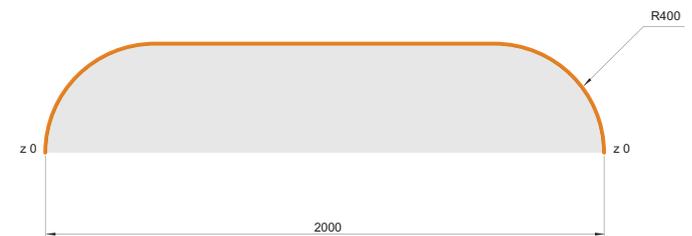
Standard palletizing cycle

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