



IRB 6660

Industrial Robot

MAIN APPLICATIONS

Press tending
Material handling
Machine tending



IRB 6660 – a robot for high-performance applications

IRB 6660 is a member of the ABB large robots family. This robot is based on parts and the vast experience from IRB 6600 and IRB 660, which, in combination with a few new design features, creates an extremely reliable robot. These unique combinations also makes ABB high-performance robots cost efficient and easy to maintain and install. The footprint, wrist, floor cables and controller are the same throughout the IRB 6600.

IRB 6660, with its stiff design and long reach, has been mainly developed for high-performance press tending operations.

The new stiff design supports short cycle time, uptime and accuracy, which, in the end, increases press line productivity.

The optimised press tending robot

The most critical robot axes have been reinforced according to typical press cycle time requirements, which, in combination with the parallel arm design that makes the robot stiff and easier to control, gives a faster robot. 15% shorter cycle times are normally achieved inside the presses. The reduction in the press occupation time directly affects the overall cycle time, and the line output.

Since the most used gears have been reinforced, gear life time is also improved when running fast in press tending.

The robot is prepared with power and resolver cabling up to the upper arm house, which makes integration of an external axis easier.

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TECHNICAL DATA, IRB 6660 INDUSTRIAL ROBOT

SPECIFICATION

Robot versions IRB	Reach	Handling capacity	Center of gravity
IRB 6660-130/3.1	3.10	130 kg	360 mm

Extra loads can be mounted on the robot.
20 kg on upper arm with 130 kg payload

Number of axes:	6
Protection	Complete robot IP 67
Mounting:	Floor mounted

PERFORMANCE

Positions repeatability	0.11 mm	
Path repeatability	0.9 mm	
Axis movements	Working range	Axis max speed 6660-130
Axis 1 Rotation	+180° to -180°	Axis 1 110 °/s
Axis 2 Arm	+85° to -42°	Axis 2 130 °/s
Axis 3 Arm	+120° to -20°	Axis 3 130 °/s
Axis 4 Wrist	+300° to -300°	Axis 4 150 °/s
Axis 5 Bend	+120° to -120°	Axis 5 120 °/s
Axis 6 Turn	+300° to -300°	Axis 6 240 °/s
Axis 2-3	+160° to +20°	

A supervision function prevents overheating in applications with intensive and frequent movements.

ELECTRICAL CONNECTIONS

Supply voltage	200-600 V, 50/60 Hz
Power consumption	ISO-Cube 2.6 kW
Normal robot movements	3.8kW

PHYSICAL

Dimensions robot base	1206 x 798 mm
Weight	1910 kg

ENVIRONMENT

Ambient temperature for mechanical unit	
During operation	+5° C (41°F) - +50°C (122°F) *
During transportation and storage for short periods (max 24h)	-25° C (13°F) - +55°C (131°F) up to +70° C (158°F)

Relative humidity	Max 95 %
Noise level	Max 73 dB (A)

Safety	Double circuits with supervision, emergency stops and safety functions, 3-position enable device
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Emission	EMC/EMI-shielded
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*In a high-speed press tending application max ambient temperature is 40 °C.

Data and dimensions may be changed without notice

WORKING RANGE AND LOAD DIAGRAM

IRB 6660-130/3.1

