IRB 6600

Meet the Power Robot Generation
Bending over backwards for extended flexibility

With the launch of the IRB 6600 robot, we’re offering much more than mere muscle. Fast, flexible and dependable, this brand new robot lends itself superbly to the toughest applications within spot welding, material handling and machine tending in industries as diverse as automotive, foundry, consumer goods and plastics.

You talked – we listened
IRB 6600 is the product of a thorough investigation of your needs. The result! A robot that’s just as productive, flexible and dependable as expected. It comes in a variety of versions, offering a handling capacity of up to 225 kg, a reach of up to 3.2 m, and a top wrist torque of 1320 Nm.

Bending over backwards
Space is a precious resource. That’s why the already compact IRB 6600 also offers a bend-over-backwards capability. You’ll find the benefits are dramatic. Robots can be placed closer together. And tool changes are speeded up, as there’s no need to rotate the machine. You simply swing the arm backwards, making the cell more compact – and less costly. What’s more, the working range of the robot is greatly extended, giving you the freedom to modify production at a later stage. And should your application call for it, IRB 6600 is also able to work with overhead conveyors.

Part of a powerful generation
IRB 6600 is part of ABB’s new Power Robot Generation. These robots are available in eight versions, and offer a handling capacity of up to 500 kg, a reach of up to 3.5 m, and a unique maximum wrist torque exceeding 3,000 Nm.
Dressed for success

IRB 6600 comes fully equipped with a comprehensive package of features, developed to provide reliable and efficient production.

Modular design
The modular design of IRB 6600 allows both the lower and upper arm to be exchanged. Benefits include extended reach and quick adaption to changing load requirements. Standardized components also mean low service costs.

Direct drive
ABB’s direct drive concept means that all motors are placed as close to the moving axes as possible to optimize stiffness, accuracy and cycle times.

Foundry Plus
The Foundry Plus option makes IRB 6600 fully foundry adapted – to withstand lubricants, coolants and aluminium spills and flashes. Features include cast covers, tar epoxy paint and tight, IP 67 sealings and connectors.

Unique IP67 total robot tightness
Not just the wrist, but the entire IRB 6600 robot is IP 67 classified, which means it can withstand harsh environments. At the same time, high tightness makes it hot steam washable – an essential feature for the food industry. Should you need extra protection, we recommend our Foundry Plus option.

SpotPack
The IRB 6600 robot can be equipped with the SpotPack function package, containing hardware and software products for spot welding and handling applications.

Quick Mounting Tool
For quick and easy attachment of different tools, IRB 6600 can be fitted with our new Quick Mounting Tool.

High inertia
The outstanding wrist torque of 1320 Nm ensures high inertia and precision handling of heavy work pieces and tools.

Integrated cable package
IRB 6600 features an optimal cable package to handle most applications. Power, water, signals and compressed air are perfectly integrated with the robot to provide quick installation and efficient production.

Rigid steel structure
ABB’s power robots are made of cast steel to offer the stiffness needed for high precision operations. They are also designed to withstand high stress and collision forces. The steel structure is insensitive to cold or heat, which means high accuracy is maintained throughout a wide ambient temperature range.
Easy to use, hard to abuse

Plug and produce
The user-friendliness of IRB 6600 becomes evident before you’ve even installed it. With Robot Studio, our offline programming software, you can create your robot program directly on your PC. That way it’s easy to resolve any problems before you go ‘live’, cutting start-up time and costs. Furthermore, the robot’s Absolute Accuracy means greatly reduced individual fine tuning of each mechanical arm. Finally, our Track Motion is fully integrated with the robot and the control system to offer easy access to one more axis.

Securing your production
Thanks to innovative software solutions, these process machines are so smart they can optimize their performance. An Electronically Stabilized Path keeps the robot on its pre-programmed path. Software sensors ‘sense’ accelerations and stresses in metal, motors and transmissions, helping to optimize each work-cycle. Self-Tuning Performance, moreover, permits the robot to adapt to true payloads. It runs faster with a light load, and slower with a heavy one, slashing cycle time and facilitating higher throughput.

Software for hard applications
To streamline process adaptation, we offer a range of software options. An excellent example is SpotWare, a platform for the easy customization of spot welding systems, and available for both servo and pneumatic guns.

At your service
IRB 6600 is designed for quick and easy service and maintenance. It features a built-in Service Information System to monitor motion and load. Based on information received, the system anticipates the next service interval, making it easy to plan the service and maintenance requirements of either a single robot or an entire line. And thanks to WebWare, a software platform that links production and office environments, you can be 1,000 miles away and still monitor your robots.

Safe operations
IRB 6600 boasts a range of software features to protect not only personnel in the unlikely event of an accident, but also the robot itself.

Load ID and Collision detection work in tandem to protect peripheral equipment, while cutting downtime in the process. Then there’s the Active Brake System, which controls braking, never letting the robot stray from its path. After a braking operation, IRB 6600 is able to resume its duties without delay.

Your best workmate
Careful optimization of hardware and software features makes IRB 6600 powerful, reliable and easy to use. Welcome to ABB.
World leading robot range based on 100,000 units of experience

Ever since 1974, when the first all-electric industrial robot was introduced, ABB has been at the forefront of robot based automation technology. Today, our wide range of robotic products help to optimize production in the automotive, foundry, plastics and food industries. Our products and services are available through ABB’s global network or sales and service centers, as well as via carefully selected partners all over the world.