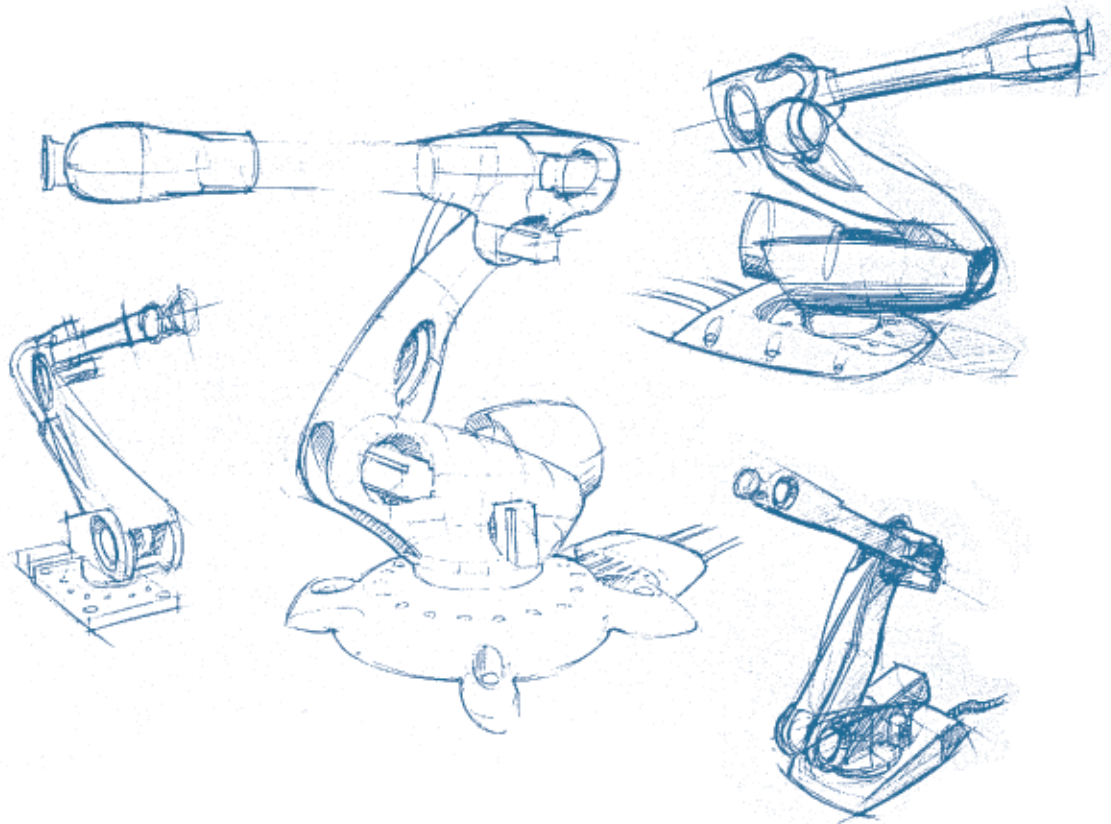


IRB 7600 the Power Robot

power
Meet the power
generation



ABB



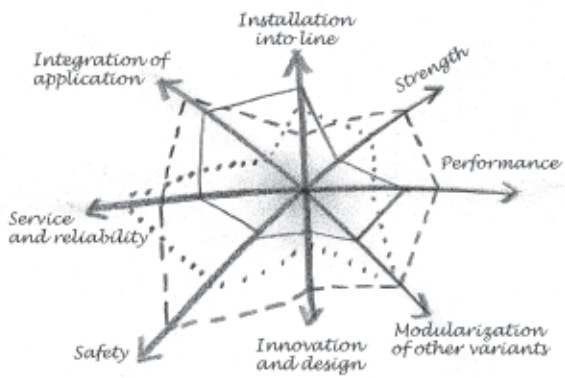
Introducing
a new robot generation



Power at your fingertips

Power. Not a word we take lightly at ABB. To us it equates to a handling capacity of more than 500 kg, a reach of up to 3.5 meters and a unique 3,000 Nm wrist torque. But there's more to these machines than just strength.

Welcome to ABB and the next leap in robotization.



"Our customers provide the maps. We provide the vehicles."

The quest for new ways to handle heavy work-pieces, grippers and tools is a clear trend in most industries. So is the need for improved robot adaptation to specific production processes. Thorough customer research provided our 200 development engineers with the input needed to begin designing a new range of industrial robots - modular, stronger, sturdier, more adaptable, and even easier to use. The result? More powerful robots with greatly improved productivity.

Employing a **unique combination of muscle and brains**, our new Power Robot is built to handle work-pieces weighing 500 kg. And, because you can extend the upper arm all the way to 3.5 meters, few jobs are beyond its grasp. In short, this is the ideal workhorse for material handling, machine tending, palletizing, press tending, machining and much more.



Adapted to your process

ABB's new Power Robots are designed to integrate seamlessly with your production process. The compact design and high payload capacity combines with precision handling of heavy work-pieces and tools.



"Every robot must meet the demands of the market."

ABB is the most experienced robot manufacturer around. Since 1974, we've delivered some 100,000 industrial robots to just about every industry. Our customers have faith in us. They expect us to supply a product that meets the exacting demands of their particular application. In return, we guarantee that our robots will perform according to plan. In-house hardware and software development combined with comprehensive simulations, using the latest CAD, modeling and calculation tools, enable us to find the best possible solutions already at the design phase.

These **stiff, rigid and rugged** Power Robots are designed to operate in a multitude of environments. They're also tight, IP 67 classified, which makes them ideal for just about anything hard, harsh and heavy.

What about **process adaptation**? All Power Robots can be equipped with custom designed software, off-line simulation tools and process cables for the major process applications. Upper arm extenders and varying wrist modules allow easy customization.

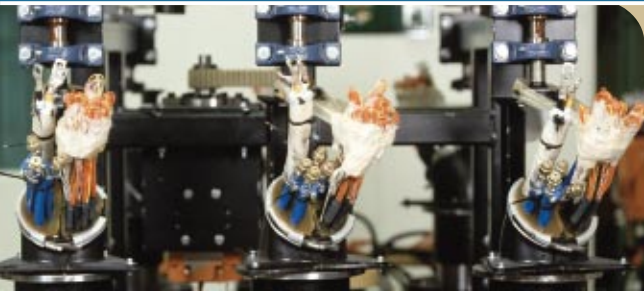
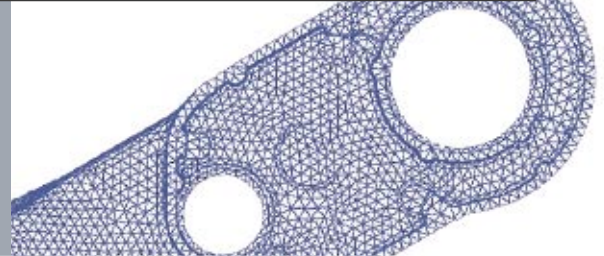
Moreover, they're ready for up to 500 kg of hip-mounted process equipment. And thanks to their compact design and greatly extended working range (they're able to reach high and bend over fully for service tools), these machines perform well even in cramped spaces.

No worries

A woman in a black long-sleeved shirt and jeans stands on a balcony, looking out at a mountain landscape. The scene is bathed in a warm, golden light, suggesting a sunset or sunrise. The woman is in profile, facing right. The balcony railing is visible in the foreground. The background shows a vast mountain range with some evergreen trees in the foreground.

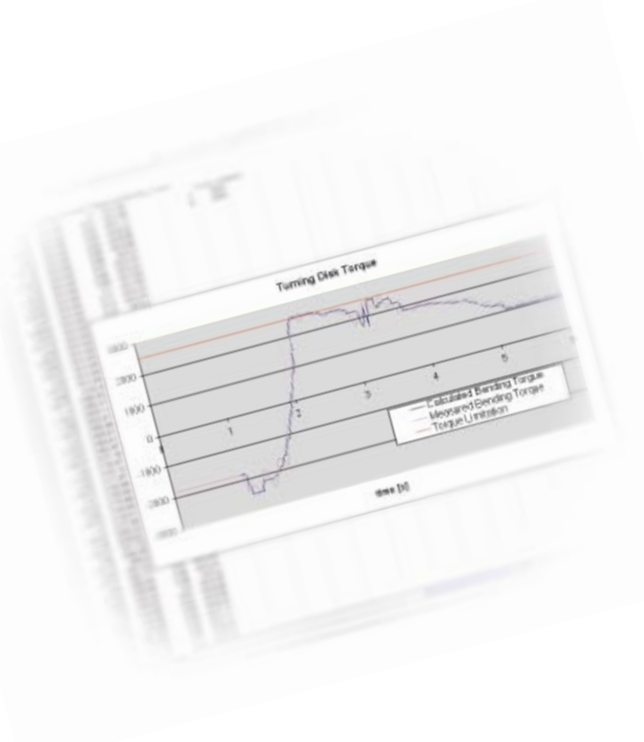
With the launch of our new range, you can be sure that every part and subsystem has been thoroughly tried and tested.

The result? Products you can rely on.



"Our philosophy is simple: Quality throughout."

Quality starts with the tiniest nut and bolt. Our design work is based on the industry's broadest experience and follows its best practices. We work closely with our trained and certified suppliers. And our verification, prototyping, manufacturing, testing and logistics operate under a program of continuous improvement. In short, the entire supply chain has been optimized to give you superior flexible automation equipment right on time.



The rigid **cast steel structure** is built to withstand high stress and collision forces. Another tried and tested solution is the ABB direct drive concept which means that all motors are placed as close to the moving axles as possible to avoid long transmission lines. Installed motor power is higher than ever. Combine that with unparalleled robot motion know-how, and the result is complete control of your work-piece at all times, allowing full speed throughout the working envelope.

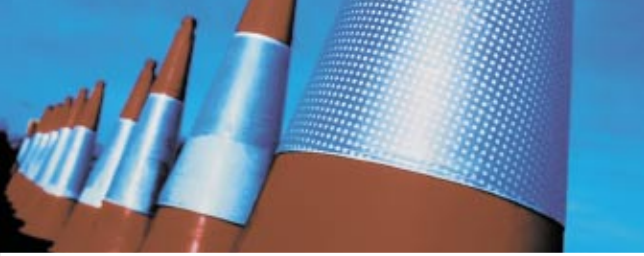
The Power Robot is the first to feature a built-in **Service Information System** to monitor motion and load. Based on information received, the system then calculates the next service interval, making it easy for you to plan the service requirements of either a single robot or an entire fleet.



Active safety

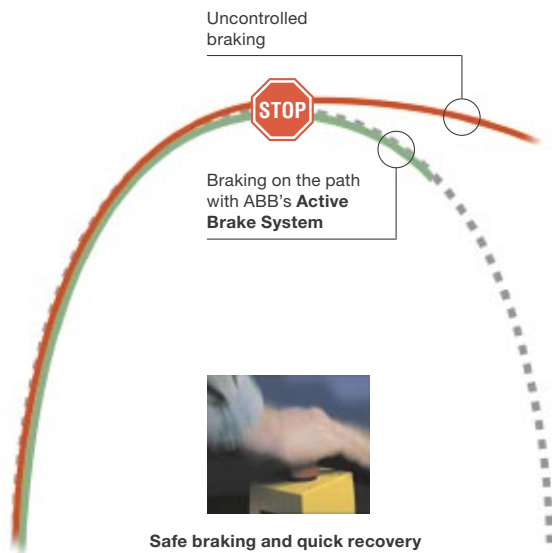
With power comes added responsibility. That's why we've added a range of features to protect you and your personnel in the unlikely event of an accident. Ultimately, a safe product is a safe investment – for you and for us.





"We don't make excuses. We make sure."

We never sacrifice safety. Instead we've introduced active safety based on advanced software. Our motion know-how helps us predict what lies around the corner, enabling the robot to make split-second adjustments for safe, efficient production. We have to be sure that the product is safe. And if we're confident, then you can be too.



Collision detection is especially important on robots of this size. Thanks to this feature, collision forces can be reduced by 70%, improving safety, protecting peripheral equipment and cutting robot downtime in the process.

Braking a load of 500 kg at high speed is a dangerous operation with high collision risks. So, we decided to equip our robots with an **Active Brake System**, ensuring controlled braking along the programmed path. Quite apart from boosting safety, the system makes the robot retract along the path, which enables the robot to resume its duties without delay.



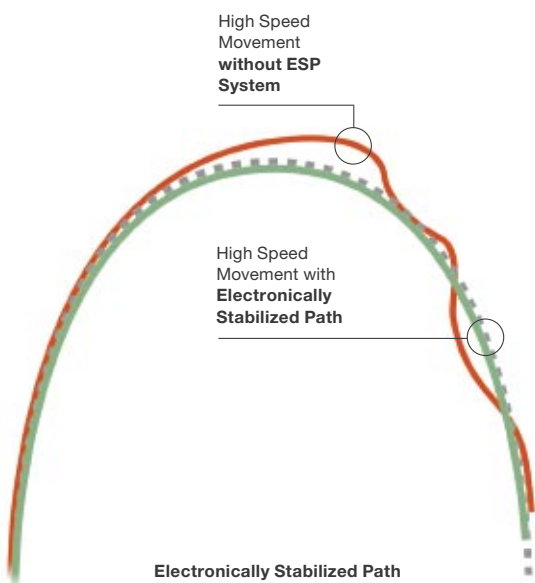


Easy to use

To us, user-friendliness is so much more than just an aim. It's a promise. That's why our new Power robots come with all the hardware and software needed to be up and running as soon as they're connected.



"There's nothing artificial about the intelligence of these machines."
We're proud to provide you with an automation machine that has all the necessary intelligence to do a great job. Up and running with no fuss. No time consuming tuning operations. All you need to add is your own process know-how. We like to think we've made flexible automation as easy as driving a car.



Our Power Robots feature new **software** so smart they can optimize their own performance. Ensuring path accuracy and optimal cycle time has never been easier.

Self-tuning performance is a Quick Move feature that allows the robot to adapt to true payloads. It runs faster with a low load, and slower with a high one, both reducing cycle times and facilitating higher throughput. If you don't want to try it on-line, why not simulate it off-line first?

The Electronically Stabilized Path is a True Move feature that enables the robot to optimize its pre-programmed path. So-called software sensors feel accelerations and stresses in metal, motors and transmissions, helping to optimize each work cycle. In fact, a robot with a 500-kg load can only run safely and precisely at high speed if equipped with ESP.



New horizons

Welcome to ABB's world of flexible automation. Our new generation of industrial robots offers a groundbreaking blend of strength and intelligence.

Muscle and brains at your service.

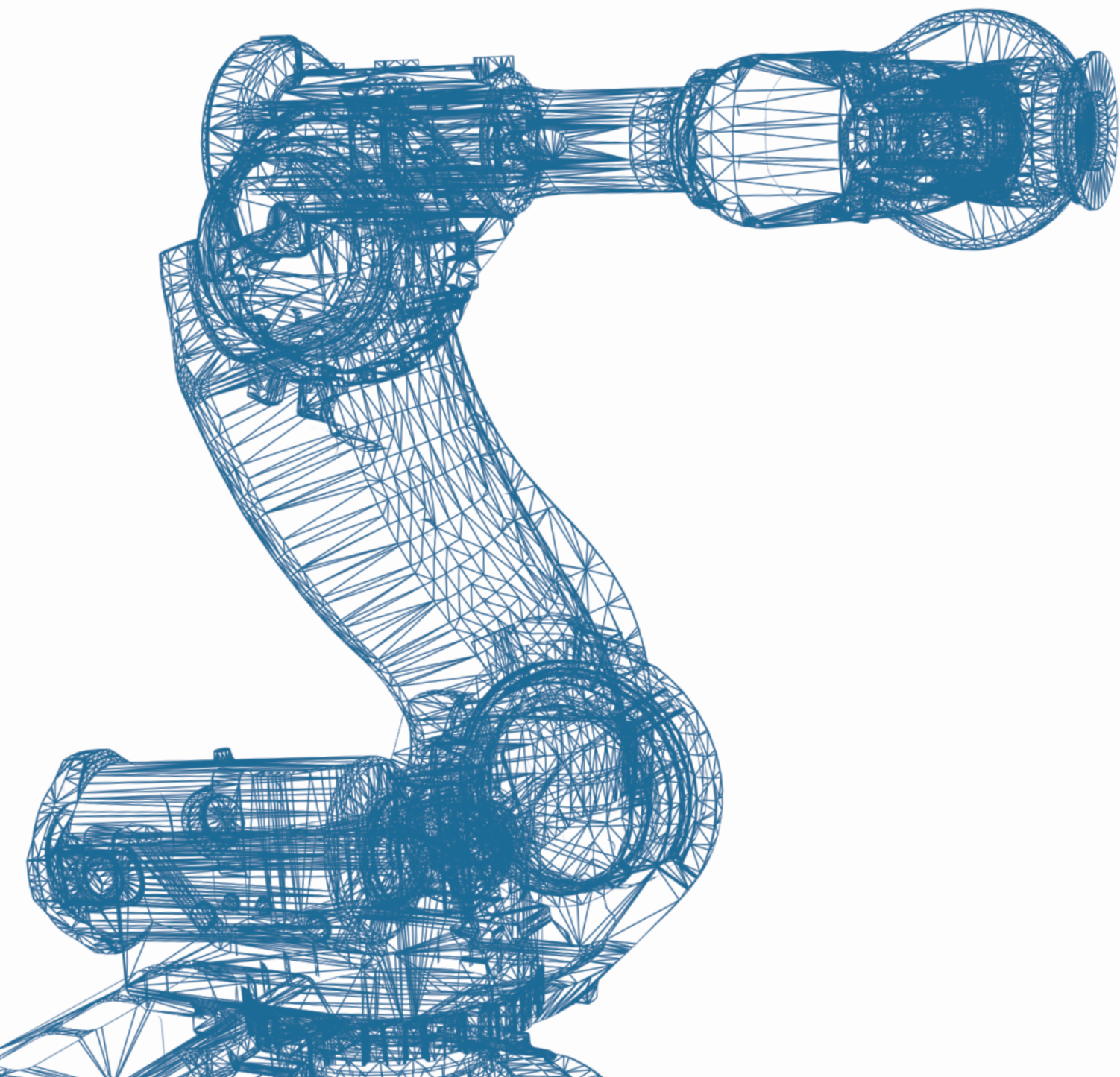




ABB can significantly improve manufacturing processes through our extensive range of robotic products, systems, and service solutions.



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